Knowing Our Neighbors

Public Opinion Research in Asia in a Time of Media Revolution and Aging Societies

Proceedings of the

2013 ANPOR

Annual Conference

Hoam Faculty House, Seoul National University
Seoul, South Korea

November 21-23, 2013

Co-organized By

Asian Network for Public Opinion Research (ANPOR)
The Korean Association for Survey Research (KASR)
Statistics Korea (KOSTAT)
Faculty of Management Science, Silpakorn University

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Annual Conference/KASR Fall Meeting

November 21-23, 2013
Seoul, South Korea

Welcome greetings from the President of ANPOR

Welcome to the first of what I hope will be many gatherings. ANPOR is a new organization, but a very promising one, I think. As you know, this is our first conference. We are pleased to welcome such a large and diverse group of participants.

We come from a variety of fields. There are some who work in statistics, others in communication. We have a large number of participants from health related fields, particularly nurses who are using public opinion surveys to plan their public health campaigns. Science communicators use surveys to assess people's knowledge and attitude about scientific issues or new technology or to plan exhibits for their museums. Pollsters and political scientists use surveys to try to predict elections in their countries or assess the current political climate. We explore new methodology for surveys and we put it into practice to help us understand or create plans based on people's thoughts.

We come from a variety countries, as well. We have representatives from many Asian countries or regions including Bangladesh, China, Hong Kong, India, Indonesia, Japan, Macao, Malaysia, Nepal, Pakistan, the Philippines, Taiwan, Thailand, and, of course, Korea. We also welcome scholars from the USA and Mexico. I am honored and humbled that all of you have come.

I think our specialty, public opinion research, is unique in how much we share with each other and yet how different we are. We all share a purpose in coming here. We are all here to try to understand the people around us a little bit better and in doing so, we hope to make the world itself a little bit better.

We know that the world is changing. With the advent of social networking, we have new tools to assess public opinion. Surveys of individuals are still a big part of our work, but using social media to understand public opinion is now a possibility. At the same time that this new technology is developing, the very make up of many societies is changing. In Korea and many other Asian countries, we face an aging population, which presents unique challenges that we hope to be able to better address with the aid of public opinion research.

This conference truly would not have been possible without the aid of our committee members and their teams. I would like to extend my deepest appreciation to our international conference committee as well as the local organizing committee, made up of KASR members. They worked tirelessly to plan a schedule of interesting and engaging events and presentations. I know you will all enjoy the fruits of their and your labor as you learn from each other and grow together.

Sincerely yours,

Sung Kyum Cho
President of ANPOR

Welcome greetings to the KASR Fall Conference

This year, our conference is different from previous ones in that we have the opportunity to meet and hear about the research results of scholars and researchers from several Asian countries. Approximately 120 scholars from outside of Korea submitted their papers to this year's conference. The topics we will hear about are also diverse, including science communication, election polling and health among others.

Since its foundation in 1999, KASR has developed greatly in terms of its academic and social roles. Now we have more than 400 memberships from various fields. Today, nearly a decade and a half later, we are having our first international conference in conjunction with ANPOR.

The success of this year's conference can be attributed to the fact that Asians want to share their work with each other. This kind of cooperation is needed all the more now because we are facing many common problems. For example, ours is not the only aging society. Environmental pollution cannot be solved within any single country.

If we want to compare the quality of life of the elderly in each country, we need to use common measurement tools. Sharing tools also enables Asian countries to share knowledge. If we use common terms and common methodology, it will be much easier to learn from each other. Working with scholars in other Asian countries may also enable us all to improve our survey research methodology.

By hosting the first annual ANPOR conference, and by organizing the conference in such an amazing way, KASR members have contributed a lot to the success of ANPOR. I hope KASR will continue to play an active role in international collaboration.

I would like to extend a warm welcome to our guests from abroad. I hope you enjoy your time in Korea and at this conference. I look forward to meeting you and working with you in the future. By working together, we can all contribute to improving public opinion research and to the creation of a more peaceful world.

Yours faithfully,

Young Won Kim
President of KASR

Table of Contents

I. Organization Profile

1. Asian Network for Public Opinion Research

The Asian Network for Public Opinion Research (ANPOR) is a new organization that promotes and supports public opinion research in Asia. The creation of ANPOR was suggested at the 2012 WAPOR conference in Hong Kong in 2012. Its constitution was ratified at a meeting in Thailand in November of 2012. ANPOR has just published the first issue of its journal, the Asian Journal for Public Opinion Research (AJPOR). ANPOR has also facilitated a cross-country survey, the results of which will be presented at this, the first annual ANPOR conference. Future conferences will take place in various countries across Asia. The interests of members include both public opinion survey methodology and its application in Asia. Its goals include the promotion of a right to conduct and publish scientific research on what people think and why throughout Asia. ANPOR encourages the use of scientific methods to conduct this research and the publication of public opinion research on Asia both here and around the world. Anyone who is interested in public opinion research in Asia is welcome to join. Members include both scholars and survey practitioners. Corporate memberships are also available. Currently, ANPOR has 35 members from 10 countries. Sung Kyum Cho from Korea is the president, Jantima Kheokao from Thailand is the Vice President, and Robert Chung from Hong Kong is the Secretary-Treasurer.

2. Korean Association for Survey Research (KASR)

The Korean Association for Survey Research (KASR) was founded in 1999. The association was established to meet the need for an interdisciplinary focus on theoretical and practical research by utilizing knowledge from both academia and the experience of professionals in the field of survey research. KASR's main conferences occur twice a year during spring and fall respectively. The conference consists of presentations of academic papers and publications as well as exchanges between foreign research associations. KASR also provides an opportunity for theoretical development and research dissemination by hosting various academic activities and joint conferences. Furthermore, KASR requires relevant research and statistics agencies to provide information and consistently conducts collaborative research projects with corporate professionals. The first president of KASR was Doo-Seung Hong a professor of sociology at Seoul National University. The 11th president, Young-Won Kim, a professor of statistics at Sookmyung Women's University, currently presides over the organization.

3. Statistics Korea

As a central government organization for statistics, Statistics Korea (KOSTAT) aims to provide services related to the overall planning and coordination of national statistics, the establishment of statistical standards, the production and distribution of various economic and social statistics, the processing and management of statistical information and the provision of various statistical data.

KOSTAT reinforces effective statistical adjustment and cooperation activities and leads quality improvement in national statistics in order to achieve the development of national statistics. In order to actively respond to diverse statistical demands in the survey environment in accordance with rapid changes in the economic and social environment, KOSTAT produces reliable statistics with accuracy, usefulness and timeliness through innovations in the national statistical system.

KOSTAT consists of 1 director general, 5 bureaus, 4 officers and 30 divisions in the headquarters. KOSTAT operates the Statistical Training Institute (2 divisions), the Statistical Research Institute (3 divisions), 5 Regional Statistics Offices and 49 Branch Offices.

4. Silpakorn Univeristy

Silpakorn University was originally established as the School of Fine Arts with inception and development of an Italian artist called Corrado Feroci or Professor Silpa Bhirasri who was commissioned during the reign of King Rama VI of Thailand.
The School gradually developed and was officially accorded a new status and name, Silpakorn University, on 12 October 1943. In the early phase of its development, its inaugural faculty – the Faculty of Painting and Sculpture, offered only programs in painting and sculpture.

Now Silpakorn has become a full-grown university offering degree programs at both undergraduate and graduate levels in all major fields of art and design, science and technology, health science, social sciences and humanities. In addition, it also maintains a Graduate School, Art Galleries, an Art and Culture Center, a Computer Center, a Research and Development Institute, and other facilities and functional services.

Faculty of Management Science

In accordance with a nationwide policy of educational reform and development in Thailand, Silpakorn University established a new campus in Phetchaburi Province called "Phetchaburi Information Technology Campus" (PITC) in 2002. To meet the needs of both the business community and the academic interests of the student community, the University strategically founded the Faculty of Management Science; the second faculty of PITC and the twelfth faculty of Silpakorn University. The PITC campus is a welcome addition to Silpakorn University's Wang Tha Phra Campus in Bangkok and Sanam Chandra Palace Campus in Nakhon Pathom Province.

The Faculty of Management Science strives to build excellence its academic programs by designing a learning atmosphere, which provides students with practical knowledge, skills, and aptitudes, which will ultimately contribute to national and international challenges today, and unknown challenges in the future, whether through private or public entities. The Faculty of Management Science has decisively incorporated highly effective and properly structured English programs into every academic discipline. By employing English teaching professionals who adhere to proven research and innovative methodology, our students develop purposeful English communicative abilities. This combination of applied management and English skills prepares our graduates to compete for the most lucrative careers in national and international organizations. For students focused on graduate degrees in higher education programs, our faculty prides itself on preparing students for academic research in their discipline of interest.

II. Committees and Members

1. Conference Committee

Name	Position
Kheokao, Jantima (University of the Thai Chamber of Commerce, Thailand)	Chair
Byun, Jong-Seok (Hanshin University, Korea)	Member
Idid, Syed Arabi (International Islamic University Malaysia)	Member
Zhou, Bauhua (Fudan University, China)	Member
Inoguchi, Takashi (University of Niigata Prefecture, Japan)	Member
Siriwong, Pitak (Silpakorn University, Thailand)	Member
LoCascio, Sarah	Executive Secretary

2. Scientific Committee

Name	Position	Affiliation
Asst. Prof. Dr. Jantima Kheokao	Chair	School of Communication Arts University of the Thai Chamber of Commerce, Thailand
Prof. Dr. Rhayun Song	Member	College of Nursing Chungnam National University, Korea
Prof. Dr. Monica Swahn	Member	Institute of Public Health Georgia State University, USA
Assoc. Prof. Dr. Sureeporn Thanasilp,	Member	Faculty of Nursing Chulalongkorn University, Thailand
Dr. Robert Chung	Member	Public Opinion Programme (POP) University of Hong Kong
Asst. Prof. Dr. Angus W.H. Cheong	Member	ERS e-Research & Solutions (Macau), and Department of Communication of Faculty of Social Sciences and Humanities University of Macau, Macau
Prof. Dr. Dieter C. Umbach	Member	Law Faculty Potsdam University, Germany
Prof. Dr. Syed Arabi Idid	Member	International Islamic University, Malaysia
Prof. Mingue Park	Member	Korea University, Korea
Dr. Yuichi Kubota	Member	University of Niigata Prefecture, Japan
Dr. Jianbin Jin	Member	Tsinghua Univerity, China
Dr. Fujun Ren	Member	CRISP, China
Mr. Pornpong Sakdapat	Secretary	School of Management Shinawatra International University, Thailand

3. Local Organizing Committee

Name	Position
Byun, Jong-Seok (Hanshin University)	Chair
Kim, Cheong-Tag (Seoul National University)	Member
Kim, Seok-Ho (Sungkyunkwan University)	Member
Lee , Gi-Hong (Hallym University)	Member
Song, In-Deok (Joongbu University)	Member
Kim, Ock-Tae (ICR, Seoul National University)	Member
Park, Seung-Yeol (World Research)	Member
Park, Min-gue (Korea University)	Member
Park, Eun-Jung	Secretary
Gim, Young-Hoon	Secretary

4. Members

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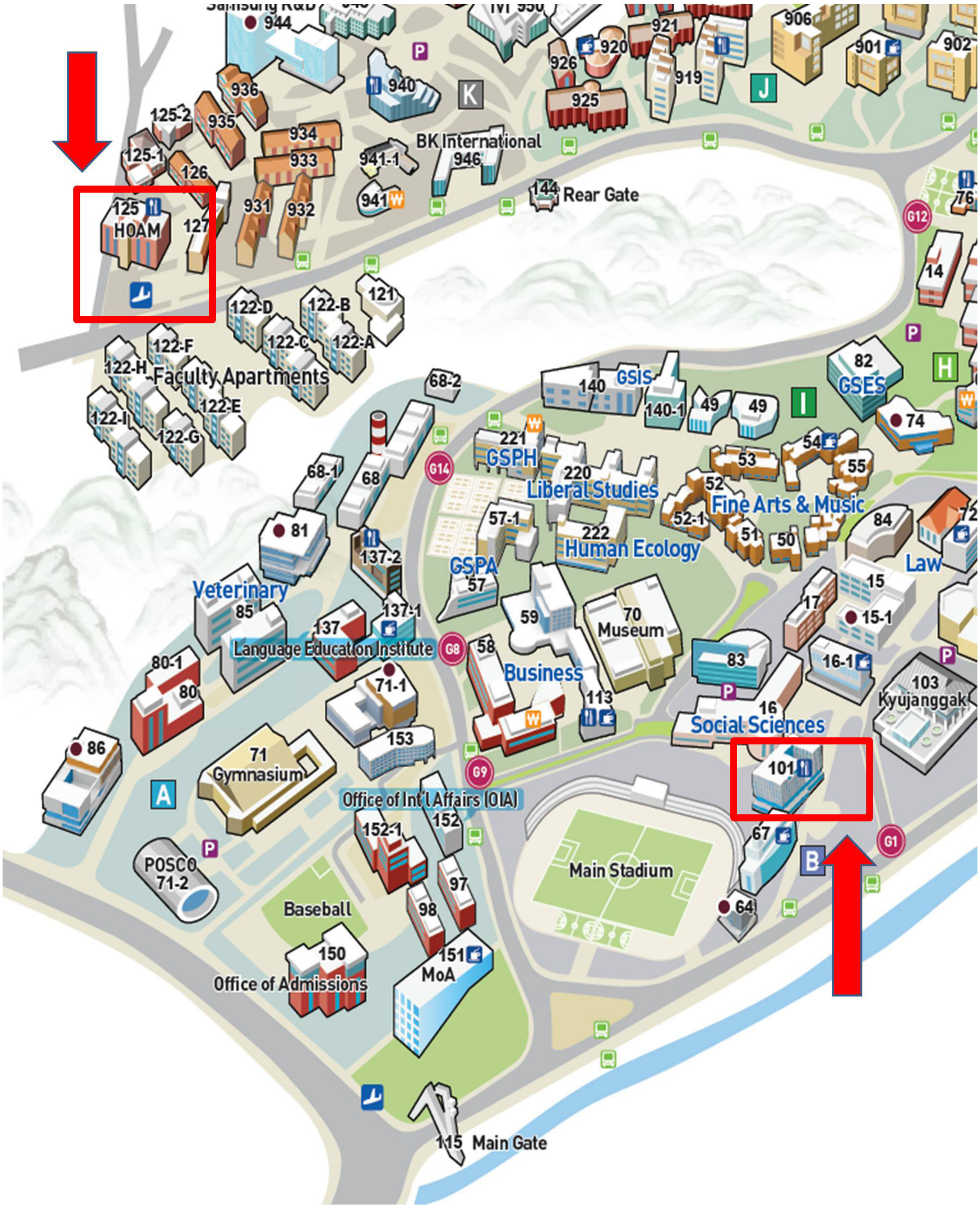
Thailand	Yingrengreung Siritorn	siritorn76@yahoo.com	Boromarajonani College of Nursing Saraburi

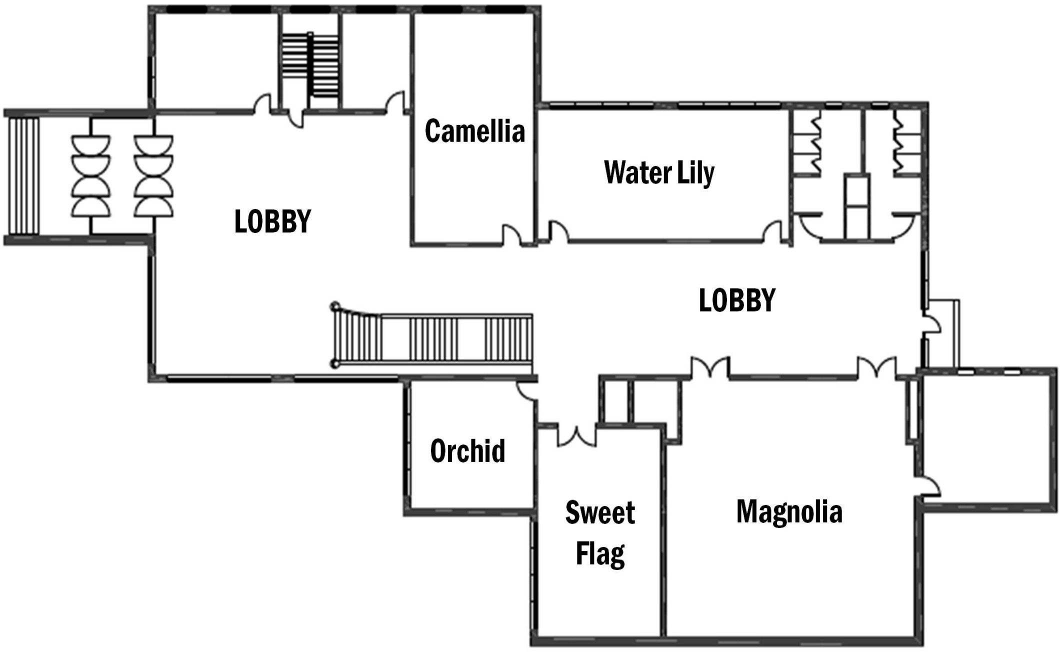
III. General Information

1. Location

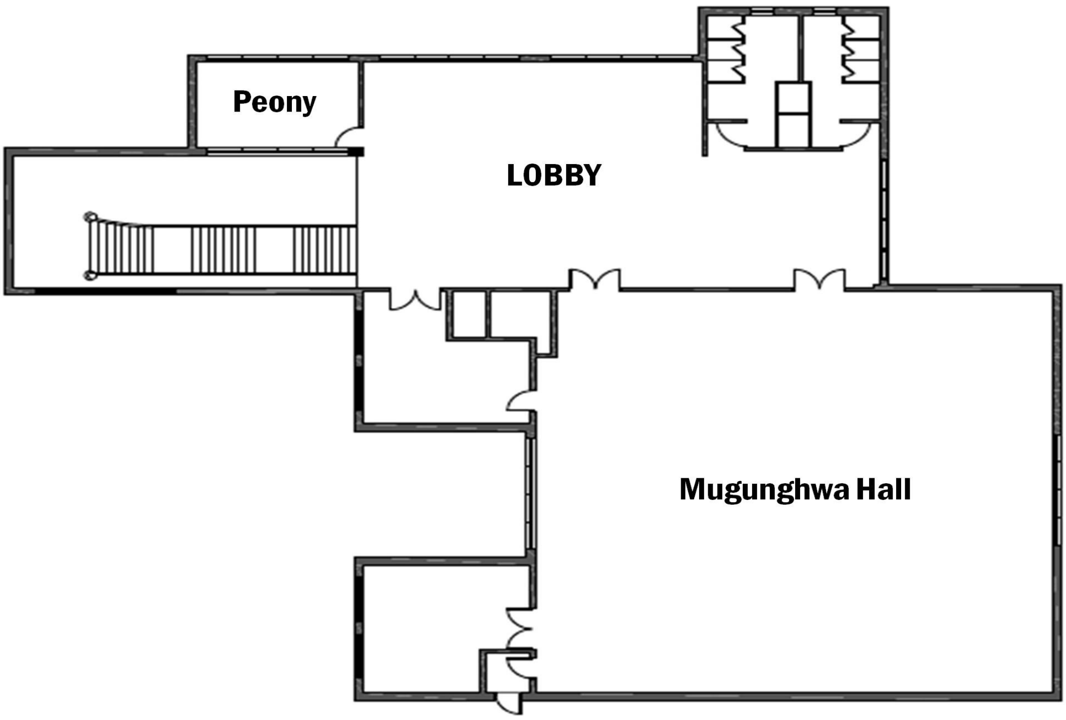
Hoam Faculty House & Asia Center, Seoul National University



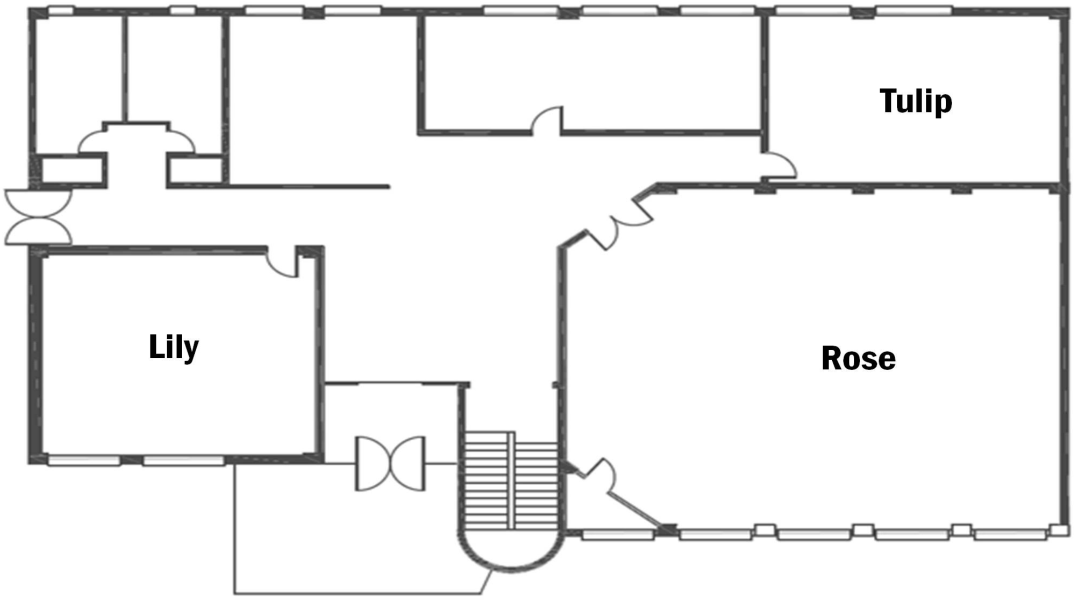
Hoam Faculty House Samsung Convention Center (125-1dong) F1



Hoam Faculty House Samsung Convention Center (125-1dong) F2



Hoam Faculty House SK Guest House (125-2dong) F1



2. Traffic Guidance

Way 1. From Incheon airport to Hoam

1. Take the "#6017 Airport limousine bus" at the GATE 6B or 13B. (Check the Bus time table)
2. Get off at the last stop "Hoam Faculty House"
   The bus fare is 15,000 won by cash.
   It takes 70 minutes.

Way 2. From Kimpo airport to Hoam

1. Take the "#6003 Airport limousine bus" at the Bus terminal #6.
   - The bus will depart every 20minutes.
   - The bus fare is 4,000 won by cash.
2. Get off at the main gate of Seoul National University.
3. Take a taxi or a shuttle from the main gate of Seoul National University
   - Shuttle service is available upon reservation only.
   - Running hour of shuttle: 08:00~19:00 (Monday to Friday).
   - Please contact at 82-2-880-0311 for reservation

Way 3. By Taxi

1. Take a taxi from Incheon/Kimpo airport to Hoam Faculty House(HFH).
2. The fare could be changeable upon traffic situation.
3. Please contact us at +82-2-880-0311 or front@hoam.ac.kr for reservation.

How to get Hoam Faculty House from City of Seoul

1. Green Line Nakseoungdae subway station(Gate #4)
   - Turn left at GS Gas-Station
   - You can see a green bus waiting in front of <Coffee House>
   - Take the "Gwanak-02 bus" which is green bus
   - Getting off the bus at Hoam Faculty House(5 min by bus)
   - A green bus "Gwanak-02 " is run every 2~3 min.
   - Time table (First run 06:00 / Last run 00:15)

IV. Conference Program

1. Conference Schedule

Date		Nov. 21			Nov. 22						Nov. 23		
Place		Convention Center			Convention Center				Guest House		Asia Center		
		Magnolia	Water lily	Camellia	Mugunghwa Hall	Magnolia	Water lily	Camellia	Lily	Tulip	Room A	Room B	Room C
Capacity		60	60	30	150	60	35	45	30	30			
Presentation	9:30~				S2_1	S2_3	S2_7	KASR Registration and General meeting	S2_17	S2_19	S3_1	*ANPOR Council Meeting*	T2: Web Tutorial
	10:30~							S2_12					
	10:50~				*Coffee Break*				*Coffee Break*				
	11:00~				S2_2	S2_4	S2_8		S2_18	S2_20	S3_2	*AJPOR Board Meeting*	
	12:20~	*Registration*			*Lunch Time*								
	13:00~		*ANPOR General meeting*										
	13:30~	Poster Session			Keynote Speech								
	14:00~												
	14:50~	*Coffee Break*		T1: Big Data	*Coffee Break*								
	15:00~	S1_6	S1_2			S2_5	S2_9	S2_13	S2_15	S2_21			
	1620~	*Coffee Break*				*Coffee Break*							
	16:30~	S1_7	S1_3	S1_5		S2_6	S2_10	S2_14	S2_16	S2_22			
Banquet	18:00-21:00	*Center Hall Reception (Magnolia)*			*Main Reception (Mugunghwa Hall)*								

Legend
Green: ANPOR session
Blue: KASR session

Extra Activity	
Wednesday	
16:00-18:00	Communication Index Forum (Lilic Hall at Hoam) Title: Measuring Communication Capital in Asian Societies, Organized by Social Science Korea(SSK) Communication Index Research Group funded by the Korean Government
Thursday	
10:00-12:00	Big data colloquium (Water Lily Hall at Hoam)
11:00-13:00	Science communication colloquium (Pine Hall at Hoam) (This colloquium is supported by Social Science Korea(SSK) Risky Communication Research Group funded by the Korean Government)
11:00-13:00	Political communication and election research colloquium (Etoies Hall at Hoam)
13:00-14:00	ANPOR General Meeting (Water Lily Hall at Hoam)
Friday	
09:30-10:30	KASR registration and General Meeting (Camellia at Hoam)
Saturday	
08:30-09:30	Asian Student Workshop Meeting (Room C at Asia Center)
09:30 11:00	ANPOR Council Meeting (Room B at Asia Center)
11:00-12:20	AJPOR Board Meeting (Sodammaru near Asia Center)

2. Keynote Speech

Doo-Seung Hong (PhD, University of Chicago) is a professor of sociology at Seoul National University and former president of the Korean Sociological Association. Currently, he is president of Korean Defense Policy Association. He also served as the first president of the Korean Association for Survey Research during the period of 1999-2001. His main research interests are in the fields of social stratification, armed forces and society, and survey research. His research has appeared in *American Sociological Review*, *Work and Occupations*, *Current Sociology*, *Social Indicators Research*, *Asia Pacific Journal of Management*, and *Journal of Management*. Recently, he was elected as the Chairman of the National Commission for Publicizing Spent Nuclear Fuel Management.

SURVEY RESEARCH IN SOUTH KOREA: PAST AND PRESENT

Prof. Doo-Seung Hong
Department of Sociology, Seoul National University, Seoul, Korea

I am very honored and delighted to have the opportunity to talk to all of you this afternoon at the 2013 Asian Network for Public Opinion Research Conference. I also would like to extend my warm welcome to all the participants, particularly to those from other Asian countries who made a long trip to Seoul. The topic I chose for the keynote speech at this conference concerns the development of survey research among academics and practitioners in South Korea over the past 60 years. Survey research, in general, covers three major areas by its purpose such as academic research, market research, and public opinion poll, even though each one is often overlapped with another. Results from market research or public opinion polls may provide basic data for academic research while academic research often renders practical guidelines and suggestions for market research or polls.

The method of survey research has a long history in social science research. As early as the late 19th century, social scientists utilized a questionnaire survey. In 1880, Karl Marx executed a mail survey with 25,000 French workers to explore their political attitudes and disposition and Max Weber was also known to use the method of survey research with factory workers when he pursued the ethics of Protestantism (Babbie, 1982: 136-137; Hong, 2001: 42-43). However, it was not until the 20th century that full-fledged surveys were carried out by social scientists.

Early Public Opinion Polls

The record shows that the first known opinion poll was conducted in 1824 in a US city for predicting people's choice of president even though it was done at a very primitive level. During the first half of the 20th century, nation-wide surveys were carried out to predict presidential elections successfully. For the 1936 presidential election in the US, George Gallup forecasted Roosevelt's victory using a more scientific method while a poll by the Literary Digest failed despite a much larger sample. Then, Elmo Roper and Louis Harris joined scientific polls during this period. Since then, the polls have become a popular way of exploring public opinion.

In South Korea, we can find a record of public opinion polling as early as April 1946, only eight months after the liberation from the Japanese colonial occupation. In an editorial, the *Donga-Ilbo*, a daily newspaper, pleaded with people to participate in a public opinion poll to be implemented soon (*Donga-Ilbo*, April 10, 1946).

In February 1950, *Kyunghyang Shinmun*, another daily newspaper, executed a poll with 677 people on the street in Seoul to find out their opinions on a constitutional amendment from the existing presidential system to a parliamentary system, which was introduced to the national assembly at that time. The survey itself was very primitive and the respondents were chosen not in any scientific way, but by the convenience sampling method. Only two questions were asked. The first question was, "Which one would you prefer, a parliamentary system or a presidential system?"[1] The second question states, "If constitutional reform is necessary, when do you think is an appropriate time for an amendment?" [2](*Kyunghyang Shinmun*, February 11, 1950).

In the early 1960s, several newspapers implemented polls to explore public opinion on timely issues of that time. In 1961, *Kyunghyang Shinmun* carried out polls twice in May and July concerning the resumption of political activities, which had been banned after the May16 Military Coup of 1961. In August 1963, the same newspaper did a poll with its regular subscribers asking their preference for the Presidential election scheduled in October. All subscribers were individually contacted, but only 26% responded. During this period, each poll reported the use of "random sampling," but no specific details were revealed.

Concerning the power transfer from the military to civilian government scheduled in 1963, in December 1962, the *Donga-Ilbo* with the Korea Social Statistics Center conducted a poll of Seoul citizens. Individual respondents were selected by systematic and random sampling methods using the residents' registration cards filed at local administrative offices. 85.4% of the total 1,500 people in the sample responded. One example of the questions asked is, "Do you have high hopes and expectations for the power transfer to civilian politicians?" 68% gave a positive and 25 a negative response (*Donga-Ilbo*, January 1, 1963).[3]

Public opinion polls were done not only by the press, but by the government. In November 1960, the first nationwide public opinion poll was executed by the Secretariat of State Council with a sample of 3000 people at 51 sampling locations. It was reported that about 80% responded (*Donga-Ilbo*, December 29, 1960). The questionnaire had a total of 52 structured questions asking opinions on such issues as the supply of fertilizers and the necessity of citizens' ID card (Lee, M-G, 1961).

1 Four choices were provided; (1) unicameral parliamentary system, (2) bicameral parliamentary system, (3) presidential system by indirect vote (current), and (4) presidential system by direct vote. In response to the question, 38.3% were in favor of a parliamentary system while 51.7% supported a presidential system. 40.9% were in support of the current presidential system by indirect vote. By occupation and age groups, manual workers strongly supported the current system and President Rhee Syngman and thought that there was no need for constitutional amendment whereas students, salaried employees and government officials were in favor of a parliamentary system. And young people strongly supported the amendment to a parliamentary system while the middle-aged and above preferred the status quo.

2 The answer was either (1) in the current national assembly, or (2) after the next general election.

3 As to the question "Do you have much interest in political issues?", 21% responded "much", 25% "so so", but 54% expressed "no interest".

Academic Activities

Now, we may have to explore when Korean social scientists started to utilize survey methods for their academic research. An empiricist approach to social phenomena has often sought to acquire objective and quantifiable data for scientific analysis. In South Korea, the discipline of sociology played a pioneering role in adopting survey methodology to its research. In 1949, the late Prof. Lee Man-Gap (1921-2010) at Seoul National University (SNU), who had had no formal training himself on this method by that time, attempted to implement a survey with a short list of questions on shops in Jongno and Chungmuro in Seoul (Lee, M-G, 1979, 2007). This is known as the first trial of a survey in academic disciplines in South Korea. In December 1958 Lee carried out a field survey using more systematic questionnaires in six villages in Gwangju and Yongin, Kyonggi Province with financial support from Korean Research Library founded in 1958. The results of the survey appeared in *The Social Structure of Korean Village* (1960) and *The Structure and Change of Korean Rural Society* (1973), respectively. The former book is known as the first research work, which used empirical social survey methodology in South Korea.

As to the teaching of survey methods, according to the history of the Sociology Department at SNU, courses named "social survey," "public opinion and survey," and "social survey methods" are found in curricula for both undergraduate and graduate students during the period of 1947-1952 (Seoul National University Department of Sociology, 1996). In that no written records are available on the contents of lectures at that time, we can only presume that since the early stage of the foundation of Korean sociology scholars have been concerned with survey methods. It was not until September 1956, when the Sociology Department at Seoul National University offered the course "Social Survey Method," that a more systematic course on survey methods is found in a university curriculum in Korea. Lee Man-Gap started teaching this course right after he came back from a research year at Cornell University. According to his memoirs, he learned survey research methods during his stay at this university (Lee, M-G, 2007).

In November 1999, academics from different disciplines including statistics, sociology, journalism, psychology, public administration, business administration, etc. gathered to form an academic association for survey research. The Korean Association for Survey Research (KASR) (http://www.kasr.org), a multidisciplinary professional association, was established which aims to promote academic research on social survey. The association has held conferences and seminars, published a scholarly journal, implemented contract research for both public and private organizations, and developed exchange programs with overseas academic associations in the field. *Survey Research*, the official journal of the Korean Association for Survey Research, has been published three times a year, but now it has become a quarterly publication.

The association, with support from Gallup Korea, enacted the Gallup Korea Award in 2003 for those who had published a high-quality paper using social survey methods in a top-tier journal and the Gallup Korea Dissertation Award in 2004 for those who had shown excellence in their performance on a doctoral dissertation in fields related to survey research methods in order to promote the development of survey research in South Korea.

Emergence of Research Companies

Apart from the academic activities, research companies emerged for business purposes in the late-1960s in South Korea. Since then, they have developed very rapidly. Now, it is estimated that over 50 research companies carry out various surveys. In 1992, research companies formed an organization, Korean Association of Opinion and Marketing Research (KOSOMAR) for exchanging information and knowledge and mutual friendship. KOSOMAR changed its name to Korea Research Association (KORA) in 2009 (http://www.ikora.or.kr). As of 2013, 42 research companies participate in KORA as a membership company. Survey research by commercial research companies consists of market research and social surveys. The proportion of social surveys or public opinion polls among the total sales volumes is presumed far less than those for market research.

The first commercial research organization appeared in 1968 (Lee, H-C., 2002). Yushin Marketing Research Company was established apart from the Marketing Research Division of Yuhan Yanghaeng, but this company lasted for only two years. At that time, there was no understanding of market research by business firms or the public. In 1974, Korea Survey Poll (KSP) was launched, which was changed to Gallup Korea in 1979, as a partner company of England-based Gallup International. Gallup Korea started public opinion polls in 1980 with the *Hanguk Ilbo*, a daily newspaper. Gallup Korea was known as the only research company until the mid-1980s when other major research companies such as Korea Research Center, Hyundai Research, Research & Research, Media Research were established.

Gallup Korea has been known as "The Academy of Pollsters" in the sense that many of its former employees left the firm and launched their own business in survey related fields or moved to other research companies as key members including the CEOs of Hankook Research, NI Korea and M&C. For example, Hankook Research, one of the biggest research companies in South Korea, established in 1978, devoted to market research until the late-1990s, now has 270 regular employees with 56 billion won in sales volumes in 2012 (http://www.hrc.co.kr).

Election Polls

As stated above, public opinion polls have been widely used for exploring people's political attitudes and forecasting various public elections. The polls have often encountered political and legal barriers for their use and public release of the results. In March 1967, the National Election Commission issued an authentic interpretation on opinion polls related to elections in response to an inquiry from a Japanese NHK Seoul branch. The commission stated that public opinion polls of voters concerning candidates' reputation and preference or the party they support are prohibited before an election, even if the results are not publicized (*Donga-Ilbo*, March 4, 1967).

In South Korea, systematic election polls were attempted for the first time in Korean history to predict the results of the presidential election, which had been scheduled in 1987. Compared to other advanced countries such as the US and UK, election polls in South Korea seem a rather recent phenomenon. During the period of 1987-1995, Gallup Korea took unrivaled initiative over election surveys and prediction. Since then, opinion polls have proliferated to forecast elections for public positions such as presidency, national assembly, and local government leaders. Polls for the 14th presidential election in 1992 were popular during the campaign period, but press release of the preference for candidates was prohibited from the first day of official campaign period to midnight of Election Day (Park, 2002). In 1995, the commission announced that opinion polls and public release by the press are permitted 60 days before election.

For the election of the 15th National Assembly members in 1996, the three major broadcasting companies KBS, MBC and SBS jointly participated in polls using telephone surveys with the help of five research companies such as Dongsuh Research, Media Research, World Research, Gallup Korea and Korea Research. For the 15th Presidential Election held in December 1997, Gallup Korea predicted the election results by a very close margin and other losing candidates as well within the margin. The accuracy of forecasting made people acknowledge the meaning and utility of public polls which had never drawn such an enthusiasm and trust from the public before (Park, 2002).

During the campaign period, various polls suffered from high percentages of "don't know", "no response" or "haven't decided yet." Park (2002, p.94) reported that the percentage of "no response" in South Korea is 3-5 times higher than Western societies because the South Korean electorate tends to be reluctant to reveal their political views frankly, presumably as a result of their experience under repressive political regimes that controlled Korea for a long time. Therefore, analysts of polls had to figure out who responds and who does not, and to pursue how to extrapolate the results of "no response" based on the results from responses. If there is no difference between the two, we may predict the result from who responded. If not, however, we may have to delve into who did not respond and extrapolate, assuming that if a non-respondent had responded to the question, he/she might have chosen one or the other by considering response patterns of the respondents based on their characteristics (mostly demographic). To make it possible, we have to develop a new technique for predicting plausible responses even though they did not expose their opinion explicitly.

In 2012, the Asan Institute for Policy Studies, a private, non-profit research organization, planned a seven-round panel survey for the 19th National Assembly and 18th Presidential elections to trace the changes of public opinion over time with the same sample of respondents. To establish the panel, the survey used multistage stratified sampling method (Park et al., 2012). For the panel, this survey employed Random Digital Dialing (RDD) using cellular phones in addition to landline phones. Since the use of cellular phones has become widespread, using them makes it easier to access respondents. However, this study reported that the sample based on cellular phone RDD by random sampling produced under-representation of certain categories such as aged women because of less use of cellular phones among this group than others. Therefore, the research team added phone numbers based on landline phone RDD method (Park et al., 2012: 14-29). Research & Research, a private research company, carried out the construction of the panel, sampling and the execution of Computer Assisted Telephone Interview (CATI).

In addition to pre-election polls, post-election polls have been conducted for various purposes. For example, to gain an early indication of voting results, exit polls have been carried out with those who voted as they were leaving a polling station. For the 1995 gubernatorial election, MBC and Gallup Korea carried out a telephone survey between 11 am to 3 pm with 10,600 people who voted and predicted winners and losers and released the results at 6 pm, right after the end of voting. But broadcasting stopped after a warning from the National Election Commission.

In 1996 exit polls were permitted for elections except for the presidential election, but contact with the voters for the poll were possible only beyond 500 meters from polling stations. In South Korea, the major three broadcasting companies implemented the first exit polls for the 16th National Assemblymen Election in April 2000. At that time, exit polls were not allowed within 300 meters from the polling stations, but the restriction for the distance was reduced to 100 meters in 2004 and 50 meters in 2012. According to the current Public Office Electoral Law, the exposure or press release of poll results concerning preference for a party or a candidate is prohibited from 6 days before the election to the last minute of voting.

Co-sharing of Data

In general, data collected at a high cost for scientific research or policy studies have never been utilized fully after the initial purpose was fulfilled. One typical example of survey research was on “The structure of consciousness of Koreans looking toward the 1980s” by the Institute for Social Sciences of SNU. For this nationwide survey, which was supported by the *Donga-Ilbo*, interviews were conducted in November 1979 with 2,200 adults aged 20 or over by stratified cluster sampling method. Survey results were reported in the *Donga-Ilbo* for four days in January 1980 focusing on different issues concerning politics, economy, social problems, etc. Since then, however, no further investigation using this survey appeared in any other way and the data were forgotten.

For this reason, the necessity of co-sharing data through archives has been raised. As a private non-profit organization, Korea Social Science Data Archive (KOSSDA) was established in 1983 to acquire, preserve and disseminate social science data collected in Korea. Users may access its website to search the data archive and download data files for statistical analysis (http://www.kossda.or.kr).

For the purpose of public use, the Institute for Social Sciences of SNU compiled and released the social surveys that this Institute had implemented during the period of 1979-1988 with the introduction and description of each survey, questionnaires, frequencies of all variables and raw data. Altogether, 22 surveys were made accessible to the public (Choi, Kwon & Hong, 1989).

Ethics for Survey Research

There have been increasing concerns about ethical issues when we deal with human subjects in any discipline. In this sense, social science is no exception even though this happens more frequently in biological sciences. Interviewees are human subjects subject to consent of response to the survey. An Institutional Review Board (IRB) recommends phrases in introductory remarks soliciting participation in the survey, highlighting voluntariness, protection of personal information, freedom to stop the response whenever they feel appropriate, etc.

Despite the utility of public polls, the unclearness and inaccuracy of survey process with respect to target population and sampling method and the over-generalization of the survey results may mislead public opinion and thus, they may be favorable or unfavorable to certain individuals or groups by arbitrary interpretation. Recognizing this problem, KASR announced the code of ethics for survey research in 2000, a year after its launching. The code states that when reporting the results of a poll, the following items should be included: the investigator and the client, sampling method, the period and area of survey, sample size, data collection method (e.g., face-to-face, phone, mail or internet survey), sampling error, response rate, and question items.

Future Challenges

Survey environments have become tough and are anticipated to be much worse in the future. Particularly, contacting viable interviewees and implementing a classic face-to-face interview is more difficult as time goes by. Door-to-door visits to apartment complexes are much harder. Before getting access to individual units, interviewers have to explain the purpose of their visit to guards who often show reluctance to give permission, making the excuse that residents would complain. In 2012, 46.8% of households lived in apartments nation-wide. Once interviewers get permission to enter, they still face the challenge of gaining permission from residents to conduct the interview. Moreover, during the daytime, it is not that easy to meet people at home. The number of one-person households has gradually increased in South Korea over the years. According to Statistics Korea, one in four households is a one-person household.

Thus, we had to find alternative ways to conduct interviews. Telephone surveys, mobile phone surveys, internet surveys, etc. need to be more developed. Constructing an interview panel has been attempted. This kind of panel may be useful in the sense that we can easily access prospective respondents who have volunteered to participate. But it also comes with the costs of constructing the panel, securing its representativeness and compensating members for their presence on the panel.

The telephone survey has both advantages and disadvantages. It can save time and money. For a fast reading of public opinion, it may be useful. However, we may not ask many questions, and thus, the number of items should be kept as small as possible. Recently, research firms started to combine different methods of contacting respondents, using a combination of house phones and mobile phones, ARS and mobile phones, etc. For example, Lee K. et al. (2012) suggested a method using a combination of landline phones and mobile phones. For those respondents who are more likely to stay at home during the daytime we may use landline phone RDD method while for those who are less likely to be at home we use the mobile phone survey based on the survey panel established by research companies.

Most telephone surveys have used directories as the basis for sampling, but the directory method faces the problem of coverage rate. A high percentage of telephone numbers are not listed in the directories causing a problem with representativeness. Thus, pollsters introduced RDD method to supplement the directory method. Huh and Kim (2008) found that about a half of the sample extracted from the RDD method were not listed in the telephone directories. According to their analysis, self-employed workers are more represented and the unemployed are less represented in the RDD sample than the directory sample.

The percentage of households with telephones differs by the size of the household. For example, one-person households are less likely to possess telephones at home than the households with two or more people. Thus, when we use a landline telephone survey method, one-person households are under-represented in the sample. Internet surveys have the same problem as well. The socio-demographic characteristics of internet users are likely to be different from non-users even though the percentage of users has increased very rapidly over the years. Mobile phone surveys have advantages compared to telephone and internet surveys with respect to accessibility to the respondent regardless of time (Huh et al., 2004). In order to secure the representativeness of the sample drawn by each method and to remedy coverage error, researchers have explored various methods.

As to response rate, even Statistics Korea, an official national statistics office, has suffered from a decrease in response rate in recent years. For example, the latest data show that over 20% of respondents rejected interviews for the Household Survey in 2012, while only 17% did in 2007.

Concluding Remarks

Our concerns in public opinion polls are directed towards how to secure the representativeness of the sample, how to enhance accessibility to the respondents, and how to increase the response rate. New technology for communication has developed to approach the public and to measure their opinion. However, the necessity for the protection of personal information and privacy has made it more difficult to learn data about individual citizens. These are the issues we have to deal with more seriously and to solve more wisely in the future. Thank you all for listening. Enjoy your time at the conference.

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3. List of Sessions

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Papers

Predictors of Quality of Life of Adults with Type 2 Diabetes Mellitus

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Abstract

Diabetes mellitus is one of the most common non-communicable diseases and as a major cause of morbidity and mortality affecting millions of people in the world. Multifaceted long-term state of diabetes mellitus can leads a high threat of acute and chronic complications; therefore, it has significant impact on quality of life. The purpose of this study was to identify the predictor of quality of life of adults with type 2 diabetes mellitus. A revised version of Wilson and Cleary model for health-related quality of life was used to guide the study. Characteristics of individual and environment (age, income, and social support), biological and physiological factors (glycosylated hemoglobin A1C and duration of diabetes), diabetes symptoms status, self-care activities, and general health perception were examined to determine their potential impact on quality of life. A descriptive cross-sectional study was conducted with sample of 181 participants of age between 35 to 64 years from three Primary Health Centers located in North Denpasar, Bali, Indonesia. Each participant was administrated structured questionnaires, including the socio-demographic questionnaire, the Summary of Diabetes Self Care Activities, Diabetes Symptom Checklist-Revised, Social Support questionnaire, general health perception, and the World Health Organization Quality of Life-BREF (WHOQOL-BREF). A regression model showed that self-care activities and general health perception were the predictors of patient's quality of life (Adjusted $R^2 = .616$, $p < .01$) explaining 62% of the variance as a whole in quality of life. Better understanding of the relationship between its predictor and quality of life is necessary to develop a suitable nursing intervention program to enhance patient's quality of life.

Keywords: type 2 diabetes mellitus, characteristics of individual and environment, biological and physiological factors, diabetes symptoms status, self-care activities, general health perception, quality of life

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Introduction

In 2004, the International Diabetes Federation estimated that the number of people with diabetes mellitus is approximately 366 million worldwide, with over 522 million are predicted to have the condition by 2030, revealing more than double digit growth rate. World Health Organization estimated that there has been a rise in the number of Indonesian suffering from diabetes mellitus from 8.4 million in 2000 to 21.3 million in 2030 (WHO, 2010). It is alarmingly dangerous condition especially to health care systems.

Type 2 Diabetes Mellitus is the most frequent from the disease accounting for 90-95% of diabetes and it is often asymptomatic for many years before the disease has been diagnosed. Additionally, in countries with high diabetes frequency, diabetes is the cause of as many as one in four deaths in adults aged. Diabetes mellitus occurrences among adults worldwide was about 4% (195 million) in 1995; a number that is expected to rise to 5.4% (300 million) by 2025 (Huang, Shoa, Hisu, & Chien, 2008). For these reasons, the quality of life among adults with diabetes is to be a serious concern, because during adult's period, they will live with chronic illness which will influence their lifestyle for the entire of their life.

Multifaceted long-term state of type 2 diabetes mellitus can lead to a high threat of acute and chronic complications, which necessitate lifetime treatment (Black & Hawks, 2010). Therefore, it has significant impact on deteriorations in health-related quality of life among adults with diabetes mellitus (Rose, Fliege, Hilderbrandt, Schirop, & Klapp, 2002; Huang & Hung, 2007; Huang et al., 2008; James, Morakinyo, Eze, Lawani, & Omoaregba, 2010). Thus, this will be resulting in escalating infirmity, with significant impact on fitness, reduced life expectancy and massive health expenses to every society, and draws to various expanse of health care (Huang & Goran, 2003).

For years, the determination of successful outcomes and or evaluation of diabetes interventions have been limited to clinically-focused measures of diabetes treatment and medication adequacy, such as laboratory values that assess the effect of metabolic control (HbA1C) with little consideration of quality of life (Arbuckle et al., 2009); furthermore the intensification of awareness of people suffering from diabetes mellitus mainly in Denpasar, Bali, Indonesia is still in the hospital toward to intensive treatment and medication. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) mentioned that although the intensive treatment can affect on lowering blood glucose and can prevent or delay the diabetes-related complications (NIDDK, 2008), the impact of controlling the blood glucose and intensive treatment on the patient's quality of life should not become the less attention (Chia, 2007). At present, the published study about predictors of quality of life of adults with type 2 diabetes mellitus has not been found in the baseline data of Indonesia particularly in the Primary Health Center (PHC) North Denpasar (Bali Profile, 2010).

A revised version of Wilson and Cleary model for health-related quality of life was used to guide this study. The model used to unify the biomedical and social science paradigms (Sousa & Kwok, 2006). The purpose of this study was to determine the predictors of quality of life of adult with type 2 diabetes mellitus. Characteristics of individual and environment (age, income, and social support), biological and physiological factors (glycosylated hemoglobin A1C and duration of diabetes), diabetes symptoms status, self-care activities, and general health perception were examined to determine their potential impact on quality of life. Furthermore, when people suffering from diabetes know exactly regarding predictors of quality of life and are able to overcome the hurdle, they will attain a better quality of life by targeting the predictors.

Methods

Research Design and Population

This was a descriptive cross-sectional study. Participants were type 2 diabetes mellitus patients selected from three PHC of North Denpasar, Bali, Indonesia. Purposive sampling was applied. Inclusion criteria consisted of: a) diagnosed by medical doctors as type 2 diabetic patients at least 1 year, b) adult's age 35 to 64 years, c) able to speak, read, and write in Bahasa Indonesia. Patients, who have severe complications such as retinopathy diabetic, which make them unable to participate in the study, or who were used insulin for treatment, and who were not willingness to be participant in this study were excluded. Sample size was calculated using G power version 3.1.5 analysis software (Faul, 2012) with $\alpha = .05$, power = .80, and medium effect size = .15. A total 181 participants with type 2 diabetes mellitus were completed the questionnaires.

Instruments

Data used in the current study were collected using a self-reported questionnaires, included the socio-demographic questionnaire, social support questionnaire, summary of diabetes self care activities questionnaire, diabetes symptom checklist-revised, general health perception questionnaire, and WHOQOL-BREF. These entire questionnaires were adapted to the Indonesian population and have been validated and used extensively in type 2 diabetes mellitus research. Therefore, those questionnaires were not modified by the researcher.

Socio-demographic questionnaire

Socio-demographic questionnaire was used to collect information not captured on the other instruments. The designs of the socio-demographic questionnaire was based on the relevant literature and initially examined for the content validity by the expert. Content validity index for socio-demographic questionnaire was 100%.

Social support questionnaire

The 11 items social support questionnaire was developed by Htet (2009) and was used to examine the availability of support from family and friends. The scale was rated from 0 to 2 with never, sometimes, and always. In this study, Cronbach's α was .86.

Diabetes symptoms questionnaire

The symptoms status was measured using the Diabetes Symptoms Checklist-Revised (DSC-R) it consisted of 34 items. The DSC-R items ask respondent to recall the last four weeks, today included and consider each symptom in terms of whether they experienced it and if so, how troublesome it was with score scale range 0 to 5. Higher score indicated greater symptoms severity (Snoek et al, 2009). In this study, Cronbach's α ranged from 0.71 to 0.93.

Self-care activities questionnaire

Self-care activities were measured using Summary of Diabetes Self-Care Activities (SDSCA). The questionnaire consisted of 11 items to measure the self-care activities over a 7-days period. The patients rate from 0 to 7 days in each item according to their practice. The more score in self-care component respectively meant the better in control of diabetes (Toobert, Hampson, & Glasgow, 2000). In this study, Cronbach's α was .76.

General health perception questionnaire

General health perceptions are often measured by a single question. It was asked people to rate their health on a scale ranging from "poor health" (1) to "excellent health" (10) (Ferrans, Zerwic, Wilbur, & Larson, 2005).

Quality of life questionnaire

The WHOQOL-BREF Indonesian version was used to measure patient's quality of life. The questionnaire consisted of overall 26-items (WHO, 2004). Two items that are examined separately: question one asks about an individual's overall perception of quality of life, and question two asks about an individual's health satisfaction have been included in this study. The scale was rated on a 5-point scale, with higher scores reflecting better quality of life. In this study, Cronbach's alpha for overall quality of life was 0.71 and for the four domains ranged from 0.81 to 0.91.

Data Collection

This study was reviewed and approved by the Ethical Review Board (ERB) Boromarajonani College of Nursing Nopparat Vajira (BCNNV) (ERB No. 09 / 2013) and Board for National Unity and Peoples' Protection of Bali Province (BNUPP) (No. 070/573/BIDI/BKBP). In addition, permission to conduct the study was obtained from the Head of each PHC in North Denpasar, Bali, Indonesia. In a private area in the PHC, researcher approached potential participants after they had their blood glucose and diabetes medication to explain the purpose of the study, data collection procedures, confidentiality assurance measures and freedom to join or withdraw at any time. Those who met the inclusion criteria and agreed to participate in this study filled out a consent form and the study questionnaires. Data about HbA1C was collected with medical records. One hundred and eighty-one patients with type 2 diabetes mellitus were approached. This study was conducted from April to June 2013.

Data Analysis

Data included descriptive statistical analysis, preliminary data analysis, and research questions testing. Pearson product-moment correlation coefficient and stepwise multiple regression were performed to determine outcome predictors.

Results

The age of the participants was between 35 to 64 years old, with an average of 55.25 years of age. Males accounted for the majority (51.9). About (38.1%) of the participants reported holding an elementary school. 60.8% of them were employed. The greatest percentages (88.4%) of the participants were in the lowest socio-economic level, with monthly income below 2,999,000 rupiah. In terms of biological and physiological factors, the average duration since diagnosis of type 2 diabetes mellitus for this subject was 4.7 years. Average Glycosylated hemoglobin (HbA1C) was 8.12 (see Table 1).

Table 1.
Sample characteristics (n = 181).

Variables	n	Mean (*S.D.*)
Age (years)	181	55.25 (8.24)
Duration of diabetes (years)	181	4.7 (4.38)
HbA1C level (%)	181	8.12 (1.62)
Variables	**n**	**%**
Gender		
Male	94	51.9
Female	87	48.1
Years of Education		
< 6 (Illiterate)	11	6.1
12 (Elementary School)	69	38.1
15 (Secondary School)	21	11.6
18 (High School)	49	27.1
> 18 (College/University Graduate)	31	17.1
Occupation		
Employment	110	60.8
Unemployment	71	39.2
Monthly Income (Rupiah)		
< 2,999,000	160	88.4
3,000,000 – 5,999,000	19	10.5
> 6,000,000	2	1.1

The description of type 2 diabetes mellitus patient's quality of life, social support, diabetes symptoms status, self-care activities, and general health perception.

For overall quality of life, the majority of type 2 diabetes mellitus patients considered they had moderate satisfaction with quality of life (49.7%). The average score for social support was 14.40 (*SD* = 6.11), which was in low level. The average score for diabetes symptoms status was 0.71 (*SD* = 0.20), which indicating that most of the participants neither had experienced each of the symptoms status in the past month. The average score for self-care activities was 36.50 (*SD* = 12.52), which was in low level. The average score for general health perception was 6.34 (*SD* = 1.52), which was in positive perception of the general health.

Relationships between independence variables and quality of life of patient with type 2 diabetes mellitus.

Income was small but had statistically significant positive relationship with quality of life ($r = .24$, $p < 0.01$), which meant higher income were presented better quality of life. There was also statistically significant positive relationship between social support and quality of life ($r = .24$, $p < 0.01$). This indicated the higher the level of social support, the higher the quality of life. Self-care activities had strong positively statistical significant relationship with overall quality of life (r = .57, p < 0.01). This indicated that the better diabetes self care activities more likely to have a better quality of life. Furthermore, general health perception had strong positively statistical significant relationship with overall quality of life (r = .77, p < 0.01). This meant that better diabetes patients perception on health were more likely to have a better quality of life. Conversely, HbA1C was a weak but had a negative statistically significant relationship with overall quality of life (r = -.33, p < 0.01). These results indicated that the diabetes patient with higher level of HbA1C reported having a relatively poorer overall quality of life. There was also negatively significant relationship between diabetes symptoms status and overall quality of life (r = -.60, p < 0.01). This meant that the greater symptoms severity reported the poorer quality of life. There was no statistically significant relationship between age and duration of diabetes and quality of life (see Table 2).

Table 2.
Pearson's correlation coefficient between independence variables and quality of life of adults with type 2 diabetes mellitus (n = 181).

Variable	**Quality of life**	
	r	***p***
Age	-.12	.12
Income	.24	.00
Social support	.25	.00
HbA1C	-.33	.00
Duration of diabetes	-.07	.33
Diabetes symptoms	-.60	.00
Self-care activities	.57	.00
General health perception	.77	.00

Predictors of quality of life of adults with type 2 diabetes mellitus

Before conducting stepwise multiple regressions for predictors of patients' quality of life, results of evaluation of the assumption of normality, linearity, the number of outliers, and homoscedasticity of residual were satisfactory. Based on the outcome of stepwise multiple regressions, the predictors of quality of life of adults with type 2 diabetes mellitus were general health perception (Beta = .66) and self-care activities (Beta = .20). In terms of self-care activities, the explained variance in quality of life was 3%. In terms of general health perception, the explained variance in quality of life was 59%. As a result, the total explained variance in quality of life for this model was 62% (see Table 3).

Table 3.
Stepwise regression analysis of predicting variables on quality of life of adults with type 2 diabetes mellitus (n = 181).

Variables	**B**	**Std. Error**	**Beta**	**R^2**	**Adjusted R^2**	**R^2 Change**	***p***
Constant	.70	.15		-	-	-	.000
General health perception Self-care activities	.32 .01	.03 .00	.66 .20	.59 .62	.59 .62	.59 .03	.000 .001
Self-care activities + general health perception						.62	

Discussion

This study demonstrated that income was positively related to quality of life. This indicated that the lower income might lead to lowering the quality of life. When the participants did not have enough money to afford the daily expenses, they might be unsatisfied with their life, resulting in poorer quality of life. This result was consistent with previous studies (Issa & Baiyewu, 2006; Chia, 2007; Huang & Hung, 2007; Huang et al., 2008). At the same time, this study revealed a positive relationship between social support and quality of life, as well as self-care activities and quality of life. This was probably diabetes patient with better self-care activities could lead to better in management of diabetes during the illness, finally lowering impact on acute and chronic complications. On the other words, better self-care activities are crucial to keep the illness under control then enhance the quality of life. This finding was consistent with previous studies (Huang & Hung, 2007; Htet, 2009). In terms of social support, it was assumed that people who had higher social support could overcome their problem better than the participants who had less social support and that their quality of life would thus be promoted, which consistent with previous studies (Göz, Karaoz, Goz, Ekiz, & Cetin, 2007; Huang & Hung, 2007; Pereira, Cross, Almeida, & Machado, 2008; Huang, Shoa, Hisu, & Chien, 2010). Moreover, general health perception was a strong and statistically significant relationship with overall quality of life in positive direction. This indicated that diabetes patients with better perception on health were more likely to have a better quality of life. This result was consistent with a previous study of quality of life by Sousa & Kwok (2006).

For biological and psychological factors, the average HbA1C level was high, which indicated that there were diabetes patients who had not managed their diabetes with over the period of previous three months. Moreover, HbA1C had negatively significant relationship with quality of life. This associated that they could more worries regarding diabetes having, therefore, a negative impact upon diabetes patient's quality of life. This result was consistent with previous studies (Pickup, phil, & Harris, 2007; Huang et al., 2008; Martinez, Aguilar, Pacheco, & Martinez, 2008; Pereira et al., 2008; Matziou et al., 2011).

Age and duration of diabetes were not significantly correlated with quality of life. According to revised version Wilson and Cleary model for health-related quality of life (Ferrans et al., 2005) stated that age is relatively non modifiable factor, however, it is useful for targeting interventions for specifics groups. The range of age in this study was 35 to 64 years, therefore, during this stage the diabetes patients still have an ability to perform some activity or not limited in physical activity. So that age could not affect the quality of life of patients with type 2 diabetes mellitus, which is consistent with previous studies (Ayalon, Gross, Tabenkin, Porath, Heymann, & Porter, 2008; Htet, 2009; Hu, Wallace, & Tesh, 2010; Matziou et al., 2011). Conversely, result was inconsistent with previous studies (Chia, 200; Kalda, Ratsep, & Lember, 2008; Hu et al., 2010).

Duration of diabetes was not statistically significant relationship with quality of life. This result indicated that there was not negative effect caused by the diabetes duration on energy as well as on quality of life. This result was inconsistent with previous studies of quality of life among diabetes patients (Papadopoulos, Kontodimopoul, Frydas, Ikonomakis, & Niakas, 2007; Kalda et al., 2008; Htet, 2009; Matziou et al., 2011).

Diabetes symptoms status had negatively significant relationship with quality of life. This indicated that diabetes patients with lower symptoms severity could have better quality of life. This was due to the participants in this study are neither has experienced each of the symptoms status in the past month. For those who experienced symptoms, they perceived that such symptoms were not considering with affected their quality of life. This result was consistent with a previous study on factors that affect health outcomes in adults with type 2 diabetes by Huang et al. (2010).

This study also showed that the predictors of quality of life for type 2 diabetes mellitus patients included self-care activities and general health perception. This indicated that the patients with low level of self-care activities were more likely to have lower quality of life than those with high level of self-care activities. Since they have had poorer control over their lives, they felt their quality of life was poor. According to the revised Wilson and Cleary health-related quality of life model (Ferrans et al., 2005), this could be explained that self-care activities were affected by characteristics of individual and environment, biological and physiological factors, and diabetes symptom status. This finding was consistent with previous studies on quality of life of patient with type 2 diabetes mellitus (Huang & Hung, 2007; Htet, 2009; Lindsay, Inverarity, & McDowell, 2011).

General health perception was a strongest significant and also correlated higher with quality of life than any of the other independent variables. This indicated that the better perception on health more likely to have a better quality of life, which is consistent with a previous study by Sousa & Kwok (2006). Furthermore, according to the revised Wilson and Cleary health-related quality of life model (Ferrans et al., 2005) hypothesized that the overall quality of life is directly related to the general health perception.

Strengths and limitations of the study

This study provides useful information about determinants of quality of life because measured many variables and found the R^2 values .62. However, there were some limitations of the study. Firstly, cross-sectional design could not explore changes in the patients' quality of life over time. Secondly, the data used in the current study were collected by self-reported questionnaires. It is known that using this method to collect data is less reliable than the interview method since the interviewer can validate responses and correct mistakes at the time of interview. However, the use of interviews to collect study data is more costly. Thirdly, during data collection the researcher was accompanied by the health care provider and health volunteer to approach the participants, this may have contributes to sampling bias. However, only the researcher has checked the whole questionnaires that have been completed by the participants. The last point highlights a potential limitation is the result in this study showed that more than half of the participant was in low level of monthly income and neither has experienced each of the symptoms severity, which may limit the generalizability of the research findings to the larger populations with diabetes mellitus. Therefore, results of this study should be cross - validated for different populations.

Conclusion and recommendations

The research results revealed that the quality of life of type 2 diabetes mellitus was in moderate level. Predictors of quality of life of adults with type 2 diabetes mellitus included self-care activities and general health perception could explain 62% of the variance in quality of life. General health perception appears to be an important variable determining quality of life. Better understanding of the relationship between its predictor and quality of life is necessary to develop a suitable nursing intervention program to enhance patient's quality of life of type 2 diabetes mellitus patients. It was limited research examining the quality of life by using the revised Wilson and Cleary Model in type 2 diabetes mellitus especially in Denpasar, Bali. Context, indicating future research in this field is still needed.

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Influenced Factors towards Cervical Cancer Screening in Nakhon Pathom Province, Thailand

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Sirikul Karuncharernpanit [1]

Abstract

Cervical cancer screening is a powerful strategy in early detection and prevention of the disease. However, only small number of women attends for this screening. The purpose of this case control study was to determine factors related to the cervical cancer screening. Samples were 220 women, aged range between 30-60 years from the cervical cancer screening requirement list of Nakhon Chaisi district, Nakhon Pathom province. These samples were divided into 2 groups: 110 women, attending the cervical cancer screening and 110 women with non attending cervical cancer screening. Stratified random sampling technique was used in this study. The data were collected, using questionnaires about personal characteristics of sample and questionnaires based on health beliefs model. Data were analyzed by percentage, chi-square test, and multiple logistic regressions.

The results showed that there are three main reasons to inhibit women to attend cervical cancer screening at the center. The first reason is embarrassing to the health care providers (40.9%). The second reason was participants think that there is no symptom of cervical cancer (36.8%). The third reason was fear to pain from the screening procedures (21.4 %.). However, there were four main factors to encourage women to visit health care center for the cervical screening test. The related factors were marital status at 3.51 times (95% CI = 1.136 - 10.810, p = 0.029), number of children at 2.09 times (95% CI = 1.380 - 3.158, p <0.001), history of sexually transmitted disease at 4.87 times (95% CI = 1.056 - 22.432, p = 0.042), history of cancer in their family at 3.79 times (95% CI = 1.443 -. 9.954, p = 0.007). Samples from this group had a good score of health belief about 1.08 times (95% CI = 1.021 - 1.146, p = 0.008) and perception towards benefits and barriers of this screening at 1.48 times (95% CI = 1.20 - 1.83, p <0.001).

The results of this study demonstrated the factors influencing attending and non attending cervical cancer screening which is an important health promoting behavior in terms of an early detection for cervical cancer. Therefore, Thai health care providers should acknowledge this issue and influenced factors and then find solutions to avoid this issue such as promoting privacy of women, raising awareness by health educating or group supporting about cervical cancer in effective and appropriate ways in the future.

Keywords: cervical cancer, screening, case control study, survey

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Background

Cervical cancer is significant health problem among female worldwide. There are two reasons to support this claim: high prevalence, negative impacts of the disease on sufferers and their caregivers.

First, cervical cancer has a high prevalence and occurrence among female. Cervical cancer is the third most commonly diagnosed cancer and the fourth leading cause of cancer death in females worldwide, accounting for 9% (529,800) of the total new cancer cases and 8% (275,100) of the total cancer deaths among females in 2008. More than 85% of these cases and deaths occur in developing countries.(Jemal et al., 2011), Thailand,

Second, cervical cancer may result in the negative impacts on sufferers and their family caregivers. It is the leading cause of cancer deaths, about 6,000 new cases and deaths at an average elevation of 7 cases of patients admitted, mostly aged 55-59 years = 18.5%, (National cancer Institute Department of Medical Services Ministry of Public Health Thailand, 2010) and found that the patients who have been early diagnosed had survival rate much more than who suffering from more advanced stage of the disease similar to the other types of cancer.

Fortunately, the early stage of cervical cancer is curable because of a slow growth and progress of the disease. Normally, tumor will grow slowly and take approximately 3-5 years to change the stage of the disease (The Royal Thai College of Obstetricians and Gynaecologists, 2011). Resulting in health promotion and early detection of cervical cancer are well accepted worldwide. Likewise, the Ministry of Public Health, Thailand realized and is aware of an importance of cervical cancer prevention and screening. The national health policy advised female who aged over 30 years to enter its screening program, especially the papounicoulou test (Pap's smear test) and should be repeatedly tested every five years until 60 years. Based on the national policy, the screening program of cervical cancer is a free of charge. When considering the actual costs of cervical cancer, the cost of this screening program, ranged from 30-60 Thai baht per time and overall cost are about 600 Baht throughout the life span. These cost are cheaper than cost of cancer treatment. The cost of maintaining a minimum of about 20,000 baht per patient, Studies from Europe indicated that if 80% of all female population attended cervical cancer screening, 55% of the incidence of cervical cancer will be reduced (Chaophotong, 2010). This phenomenon can reduce the treatment cost of cervical cancer treatment, requiring advanced technology and high level of care.

Referring to the national policy, Nakhon Pathom province, Thailand is also aware of the significance of this screening program. However, the report of Nakhon Pathom Public health office indicated that only 20.37% of woman attended the cervical cancer screening program (Provincial Health, 2012), especially in Nakhon Chaisi district. There were many reasons to support this issue. For example, shyness, no signs or symptoms of cervical cancer and afraid of pain from the invasive screening procedures such as the use of speculum. This is consistent with studies (Pornsinsiriruck, Therawiwat, & Imama, 2011){Pornsinsiriruck, 2011 #15} and (Sudsawang, 2008) Although several public health agencies use a variety of promoting strategies such as setting up campaigns to encourage women to attend the screening test as well as giving health education to the prospective target group using public announcement via the village public channel, leaflet or brochures, and paying for the health volunteers who can recommend women to attend the screening test. Nevertheless, there are 70% of women who deny attending the screening test. Previous study of Varunee (Sudsawang, 2008) found that perceived risk of cervical cancer associated with attending the screening test and denying the screening test due to shyness and non sign and symptoms. However, the further study indicating actual reasons of this deny in Nakhon Chaisi district in Nakhon Pathom province, Thailand are urgently required to advise or guide the health care providers about the strategies to increase number of screening attendants in the future.

Due to awareness on the benefits of cervical cancer screening, this study focuses on the influenced factors on attending cervical cancer screening test. The result of this study will be the useful information to help policy makers and health care providers to find strategies to encourage women to attend the screening test successfully. Therefore, the health care providers can increase the incidence or detect cervical cancer in the early stage significantly. Later, it may reduce the cost of cancer treatment and mortality from cervical cancer in the future.

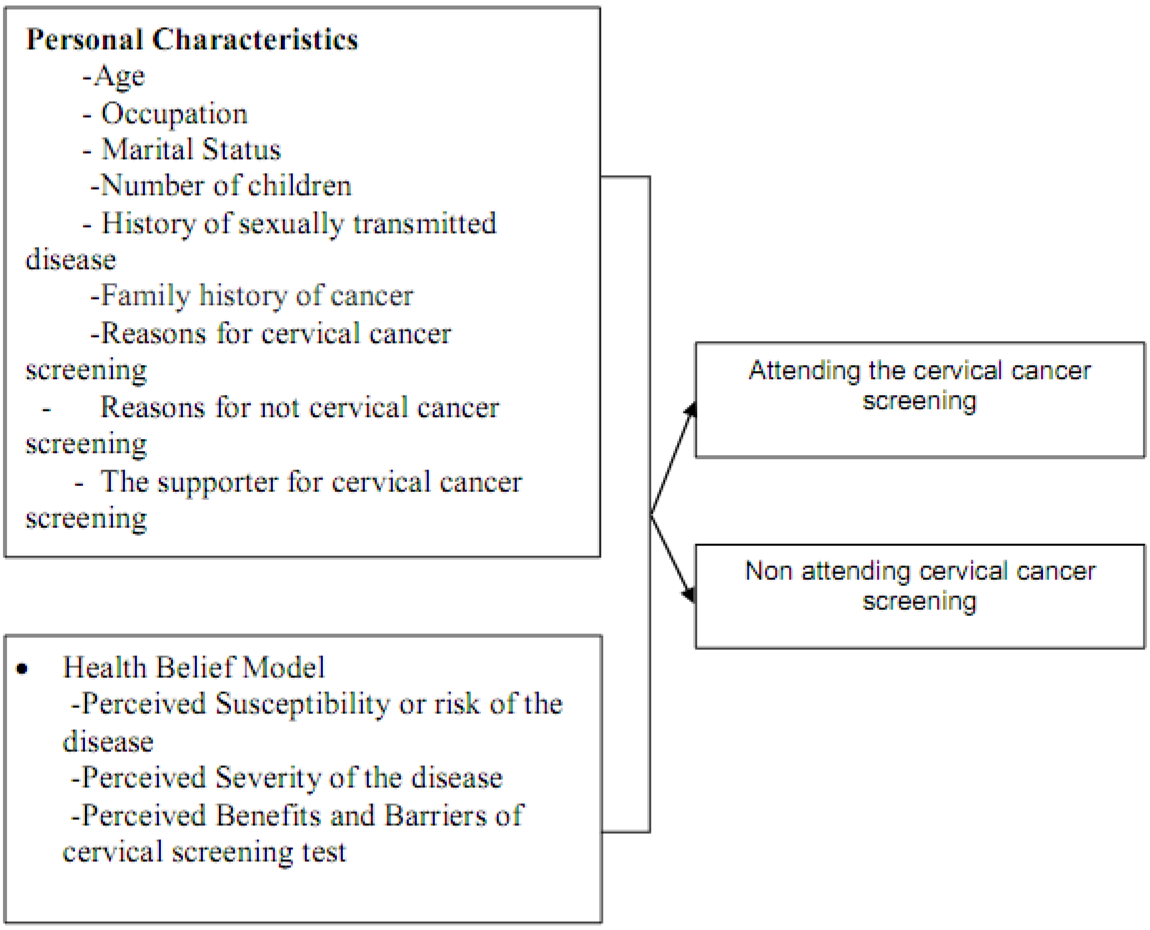
Objectives

There are three main objectives of this study. First, to explore personal characteristics, health belief model and cervical cancer screening test. Second, to compare the differences of characteristics and factors from health belief model and attending rate, Third, to explore the influenced factors on attending cervical cancer screening.

Operational terms:

1. **Factors** refers to personal characteristics and health beliefs.
2. **Women 30-60 years old**, including single, married, widowed, divorced, which in Nakhon Chaisi district , Nakhon Pathom, 2012.
3. **Cervical cancer screening** refers to a method or technology used to detect pre invasive cervical cancer. In order to, make the treatment of the disease by a few clicks away effectively. In this study methods. The cytology of the cervix (cervical cytology) or Pap's smear.
4. Health Belief Model means a model explained factors such as opinion, understanding or belief of women aged between30-60 years towards cervical cancer. These thought may be reasonably accept or may be not but it tends to influence that person to practice or do based on their thought. This study pay attention on the perceived risk of cervical cancer, perceived severity of the disease, perceived benefits and barriers of cervical cancer screening.

Conceptual Framework



Materials and Methods.

Research Design : Case-control study

Population and sample size

The study was conducted in Nakhon Chaisi district, Nakhon Pathom province. The populations of this study were 25,894 women, aged ranged from 30-60 years living in Nakhon Chaisi district, Nakhon Pathom province, Thailand.

Sample: 220 participants were recruited by the researcher. These samples were divided into 2 groups: 110 women, attending the cervical cancer screening and 110 women with non attending cervical cancer screening.

Sample size calculation: A sample size of 220 subjects comes from calculation using.formula. The minimal number of samples were 101 participants.

Instrumental tools

There were two main instrumental tools to collect the data for this study:

1) Personal characteristics, including age, occupation, marital status, number of children, history of sexually transmitted diseases, family history of cancer, reasons for attending cervical cancer screening test, reasons for not attending cervical cancer screening test and the supporter for cervical cancer screening test were explored.

2) The Health Belief Model, consisted of perceived susceptibility, perceived severity, perceived benefits and barriers towards the screening. This factor were collected the data by using questionnaires. The questionnaires (Rating Scale) of the three levels consists of 28 questions, scores are ranged from 28-84 points The lower score means a poor health belief score and the higher score means a good health belief score.

Validity and Reliability

Validity of the questionnaire was tested in terms of content validity based on the congruence of experts' opinion including: 1) Doctor or physician in preventive medicine, 2) Medical specialists and family medicine, 3) Nursing instructor at the Department of Community Health and Psychiatric Nursing , 4) Nursing instructor at Department of Obstetrics Nursing and Nursing Administration, and 5) staff who account responsible for cervical cancer screening. To determine the content validity (IOC: Item Objective Congruence Index), these opinions or agreement of the experts, were interpreted with the scores = 0.87. After the questionnaires were tested for content validity, then trying out 30 questionnaires to test the internal consistency with alpha Cronbach Cofficient and the result of this internal consistency was at 0.814.

Ethical approval

This research was approved by the Ethics committee of Baromarajonani College of Nursing, Chakriraj. All participants agreed freely to take part in the study after they understood clearly about the research procedures and they had a right to withdraw from the study if they want without any negative impacts on the treatment or support from others. The data or information which may identify participants were removed for the privacy and the results of this study were reported as a whole.

Data collection : This study was conducted during August - November, 2012.

Data analysis

Data was analyzed using the SPSS version 15. The level of confidence in the statistical significance level of 0.05 was used. The data were analyzed by percentage, chi-square test and multiple logistic regressions.

Results

Personal characteristics of participants

Most women, attending cervical cancer screening, aged ranged between 41-50 years (49.1%), Most of them were employed (38.2%), married (80.9%), having about 1-3 children (82.7%), having a history of sexually transmitted diseases (24.5%), and having family history of cancer (30.9%). Most participants reported that health care providers were the key person to support for cervical cancer screening (29.1%) as well as their husbands (25.5%).

On the other hand, most women, non attending cervical cancer screening, age ranged between 30 – 40 years (45.5%), employed (44.5%), single (46.4%), having no children (60.9%), having less problem about the sexually transmitted diseases (2.7%), Furthermore, the participants in this group also reported a less problems about cancer history among family members (9.1%), without any support for cervical cancer screening (20.9%). Both groups were different significantly at 0.05 level**.**

Reasons for the cervical cancer screening Most participants reported that health care providers were the significant reason for attending the cervical cancer screening test (50.0 %), and they attended as an annual health check (34.5%) whereas, health volunteers advice them to attending the screening (18.2%) and fear to cervical cancer (17.7%). The least reason to support attending screening test were : 1) having pain while having sexual intercourse or vaginal bleeding (0.5%), having bleeding after sexual intercourse (1.4%).

Reasons for avoiding cervical cancer screening were :1) embarrassing the health care providers (40.9 %), 2) minor asymptomatic (36.8%), 3) fear to pain from the screening procedures (21.4%), 4) being single (17.3%) and 5) do not have time to check (12.3%).

Health Belief Model

Among attendants group, most participants report that the health belief level 50.9 percent of women failed to attend cervical cancer screening. Most of the health belief are 54.5 percent as shown in Table 1.

Overall score of health belief

Even though women who had a good level of overall scores tended to attend the cervical cancer screening greater than the poor level; however, there was no significant difference between the overall scores of health belief as shown in table 1.

Perceived Susceptibility or perceived risk

There was no significant difference between participants who have different levels of Perceived Susceptibility and attending the cervical cancer screening test as shown in table 1.

Perceived severity of disease

There was no significant difference between participants who have different levels of Perceived severity of disease and attending the cervical cancer screening test as shown in table 1.

Perceived Benefits and Barriers

However, there was significantly different between participants who have different levels of Perceived benefits and barriers and attending the cervical cancer screening test as shown in table 1.

Table 1.
Health belief and the of cervical cancer screening.

Health belief	cervical cancer screening				p-value
	Attending		Non attending		
	n	%	n	%	
Total					
Good level	56	50.9	50	45.5	0.418
Poor level	54	49.1	60	54.5	
Perceived Susceptibility					
Good level	45	40.9	37	33.6	0.329
Poor level	65	59.1	73	66.4	
Perceived Severity					
Good level	44	40.0	51	46.4	0.341
Poor level	66	60.0	59	53.6	
Perceived Benefits and Barriers					
Good level	75	68.2	55	50.0	0.006**
Poor level	35	31.8	55	50.0	

Perceived Susceptibility: women who attending and non attending cervical cancer screening were statistically significant different ($p>0.05$). Including, women older than 30 years old are risk of cervical cancer = 70.0% and 50.0% ($p = 0.002$) abnormal menstruation are risk of cervical cancer = 98.2 % and 88.2% ($p = 0.003$), the sexually transmitted infection risk for cervical cancer = 76.4% and 61.8% ($p = 0.020$), married women at risk of cervical cancer = 55.5% and 39.1% ($p = 0.015$), the gallivanting husband affect to wife to cervical cancer = 57.3% and 43.6% ($p = 0.043$), a sexual transmitted disease are risk of cervical cancer = 72.7% and 43.6% ($p <0.001$), without symptoms do not need cervical cancer screening = 28.2% and 40.9% ($p = 0.047$) , young women who had children chance of cervical cancer = 55.5% and 36.4% ($p = 0.004$).

Perceived Severity : women who attending and non attending cervical cancer screening were statistically significant different ($p>0.05$), including for cervical cancer along time can spread to other organs = 70.9% and 58.2% ($p = 0.048$) and antibiotics can treat cervical cancer= 8.2% and 1.8% ($p = 0.030$).

Perceived Benefits and Barriers : women who attending and non attending cervical cancer screening were statistically significant different ($p>0.05$), including the cervical cancer screening to prevent cervical cancer is effective = 77.3% and 62.7% ($p = 0.019$) in detecting cervical cancer may not cause pain = 38.8% and 19.1% ($p = 0.002$), most women do not go for fear of cervical cancer screening results as cervical cancer = 55.5% and 39.1% ($p = 0.015$) and cervical cancer screening is easy to take time to no more than 10 minutes = 86.4% and 60.0% ($p <0.001$).

Influence factors towards Cervical Cancer Screening

Characteristics

The personal characteristics which related to the attending cervical cancer were statistically significant different ($p>0.05$). Including factors: marital status, number of children, history of sexually transmitted disease, history of cancer in their family, health belief score at good level and perceived the benefit and barriers of the screening. First, marital status was significant influence the attending cervical cancer screening test at 3.51 times (95% CI = 1.136 - 10.810, $p = 0.029$). Second, number of children was significant influence the attending cervical cancer screening test at 2.09 times (95% CI = 1.380 - 3.158, $p <0.001$). Third, history of sexually transmitted disease was significant influence the attending cervical cancer screening test at 4.87 times (95% CI = 1.056 - 22.432, $p = 0.042$), history of cancer in their family was significant influence the attending cervical cancer screening test at 3.79 times (95% CI = 1.443 -. 9.954, $p = 0.007$). The details were shown in table 2.

Furthermore, considering samples who had a good score of health belief was significant influence the attending cervical cancer screening test about 1.08 times (95% CI = 1.021 - 1.146, p = 0.008) and perception towards benefits and barriers of this screening was significant influence the attending cervical cancer screening test at 1.48 times (95% CI = 1.99 - 1.83, p <0.001). The details were shown in table 2.

Table 2.
Univariate and multivariate analysis of predictors of cervical cancer screening by characteristics

Characteristics	Univariate			Multivariate		
	OR	**95%CI**	**p-value**	**OR**	**95%CI**	**p-value**
Age						
30-40	0.460	0.224 - 0.945	0.035*			
41-50	1.199	0.600 - 2.395	0.608			
51-60	1					
Marital status[1]						
Widowed	1			1		
Number of children[2]	2.638	1.973 - 3.526	<0.001**	2.09	1.380 - 3.158	<0.001**
History of sexually transmitted disease[3]						
No	1			1		
Yes	3.619	1.386 - 9.452	0.009**	4.87	1.056 - 22.432	0.042*
Family history of cancer[4]						
No	1			1		
Yes	4.474	2.081 - 9.619	<0.001**	3.79	1.443 - 9.954	0.007**

** < 0.05 ** <0.01*
[1] Adjusted for number of children history of sexually transmitted disease and family history of cancer
[2] Adjusted for marital status history of sexually transmitted disease and family history of cancer
[3] Adjusted for marital number of children and family history of cancer
[4] Adjusted for marital status number of children and family history of cancer

Health belief

Adjusted confounder found that perception towards benefits and barriers of this screening was significantly influent the attending cervical cancer screening at 1.48 times (95% CI = 1.20 - 1.83, p <0.001). The details were shown in table 3.

Table 3.
Univariate and multivariate analysis of predictors of cervical cancer screening by health belief

health belief	Univariate			Multivariate		
	OR	95%CI	p-value	OR	95%CI	p-value
Total	1.043	0.995 - 1.093	0.078	1.08	1.021- 1.146	0.008 **
Perceived Susceptibility	1.051	0.973 - 1.134	0.205	0.97	0.858-.098	0.636
Perceived Severity	0.934	0.796 - 1.094	0.097	0.91	0.743-1.117	0.370
Perceived Benefits and Barriers	1.236	1.087 - 1.405	0.001**	1.48	1.198 - 1.833	<0.001 **

** < 0.05 ** <0.01*
Adjusted for marital status number of children history of sexually transmitted disease and family history of cancer

Discussion

Characteristics

The result from this study found that women who are married or have children tend to increase the opportunity of cervical cancer screening, which contrasts to (Jaisiri, 2010) and (Sudsawang, 2008) studies which found that marital status and number of pregnancies no relation to the cervical cancer screening. This study, women who are married and have children, had been arranged from health care system to attend the cervical cancer screening test while they were attending the postpartum check. Therefore, they were familiar with or had experience with these types of screening test and they were not have the precipitate fear to the screening test. This reason may allow women who were married and had children tended to attend the cervical cancer screening test greater than women who are unmarried and without a child.

Reasons of cervical cancer screening.

Most of the health care providers can influent women to attend the cervical screening (50.0 %) followed by 34.5% participants came because of annual health check and health officials and Volunteers (18.2%). These results are congruent with Sudsawang (2008) which found that the most common reason of the women, attending cervical cancer screening is a campaign to encourage people to attend the screening test or check.

Furthermore, the campaigns which raise awareness and encourage women to attend the cervical cancer screening test individually through a support of health volunteers had been reported clearly as a significant factor of attending. However, if they found women who had bad attitudes towards cancer screening, health care providers and health volunteers will visit and follow up them at home to help them understand about the cervical cervix and importance of attending the screening test without the negative approach. These services are free of charge. As a result, the number of women who had experience with a sexually transmitted disease was interested in attending the screening test were greater than the past.

Additionally, 17.7 percent of people who have problem with vagina or reproductive system, they reported about fear of cervical cancer. For women who had a history of sexually transmitted disease, they tends to aware of cervical cancer better than other groups, for example they tends to attend the cervical cancer screening about 4.87 times (95% CI = 1.056 - 22.432, p = 0.042). Followed by a family history of cancer at 3.79 times (95% CI =. 1.443 - 9.954, p = 0.007) and women with a history of cancer in your family have the opportunity of screening for cervical cancer was 3.79 times, consistent with studies of Tinlaor & Khiewyoo (2010) and Sripiboonbat, Moopayak, & Ruangiratain (2011) which found that the presence of abnormal vagina correlated with the decision making on screening of oral cancer. Additionally, an abnormal uterus was also affected the cervical cancer screening for 3.49 times (95% CI = 3.25 - 13.16) shining hearts (Jaisiri, 2010) found that patients with a history of sexually transmitted diseases significantly correlated with the cervical cancer screening services this may due to suffering from the illness which is a direct result of women 's own symptoms, resulting in women usually aware of early detection of cancer by themselves as well as having a history or symptoms sexually transmitted diseases, most doctors usually educate women, their caregivers about the disease prevention, treatment and other related disease such as cervical cancer. Therefore, most of them tended to attend cervical cancer screening better than other groups.

For the group who did not attend the screening for cervical cancer most of them reported that embarrassment toward health care providers was the significant reason (40%), followed by fear for pain or hurting from the invasive procedure (36.8%) and marital status with single status (21.4%) as well as no time to attend the cervical cancer (17.3%). Furthermore, some reasons such as having no information about the screening were reported. These phenomenon is consistent with the study of Tinlaor & Khiewyoo (2010) and Sripiboonbat et al. (2011) found that in women who are not shy towards the screening of cervical cancer are related to at 6.54 times that of women who are shy and women with a free time in the screening of cervical cancer decide to screening for cervical cancer (21.88 times) when compared to women who do not have time in the screening of cervical cancer. Similarly, Sudswang's study also (Sudsawang, 2008) found that the reasons for non attending are without any signs and symptoms (70.00%), Furthermore, the reasons of the embarrassment, especially with health care providers because in the Thai culture, sex is a secret topic and it should not be exposed to others. Therefore, women may feel embarrassed to attend the cervical cancer screening with their familiar health care providers and the single women tends to understand that they have a lower risk towards cervical cancer. All these reasons lead them to avoid attending the screening test.

Based on the Health Belief scores, women who have a higher score on perceived benefit and barriers tends to attend the screening test whereas the perceived risk or susceptibility and severity of the disease were not support this claim. Interestingly, these results contrast with the study of Sudsawang (2008) which found the association between the belief such as perceived risk of the disease and barrier of cervical screening test behavior and attending the screening test. Furthermore, considering the personal factor which related to an awareness of cervical cancer screening, the results from this study found that the marital status, especially people who are married tend to attend the cervical cancer screening more often than single women. It is congruent with Sripiboonbat's study (Sripiboonbat et al., 2011) found that even though an awareness about the risk of cervical cancer is high, an awareness about the severity of cervical cancers is at the moderate level. Nevertheless, Kamwisit's study (Kamwisit, Panitnapun, & Jompunsa, 2008) found that health belief does not associate with the screening test among married women.

Recommendations

1. For the policy makers, these results can be used for the policy maker to understand influence factors toward cervical cancer screening. Later, the policy maker can improve their plan about health promotion or campaign to encourage women to attend the screening test.

2. For health care providers, these results such as perceived benefit and barriers to cervical cancer screening may help health care providers to understand and look for the strategies to raise awareness and increase health belief of each women using focus groups or support from professionals to increase number of cervical cancer screening.

3. for future research, in-depth interview about the actual reasons and decision making process and randomized control trial to examine the effect of education, increase awareness package or implement a mobile health services to provide care for women who are not want to attend the screening test should be further studied.

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The Effects of the Nuclear Power Plant Accidents on the Japanese Attitudes towards the Energy Sources and Climate Change

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Introduction

Based on our survey results of February 2013, we discuss the Japanese attitudes towards the energy sources, especially energy choices including nuclear power and climate change. The survey was done by NIES, with the questionnaire designed by Cardiff University (Dr. Poortinga), fielded by the Survey Research Center Co., Ltd, and supported by the Ministry of the Environment Japan.

The main theme of this survey is the risk trade-offs between climate change and energy options, especially nuclear power generators, as the nuclear power generator was one of the key policy options for mitigating climate change in Japan before March 11, 2011. The share of nuclear power generation among the whole electric supply was more than 30 percent just before 2011, and the Japanese government plans to expand by more than 50 percent in the future for tackling climate change.

After the explosion of the Fukushima Daii'chi nuclear power plants, there has been much debate about whether to keep using or shut down nuclear power generators. The Japanese government is now rethinking its climate change mitigation plan, but still the short-term and mid-term targets are not open. Its long-term target remains same as before 2011: 50 percent carbon dioxide reduction by 2050 from the 1990 level.

The Japanese government plans to begin operating some nuclear power plants, especially newer ones, but it faces severe public opposition. We plan to investigate the context and contents of this situation with our survey.

Our survey

Our survey was done by NIES, with the questionnaire designed by Cardiff University (Dr. Poortinga), fielded by the Survey Research Center Co., Ltd, and supported by the Ministry of the Environment Japan. Our sample size is 3,000 drawn from all over Japan, 20 to 79 years old. Our sample points are 150, but excluded the points where the government prohibited people from living in those regions as a result of the 3.11 Earthquake, Tsunami, and radioactive contamination.

Our effective sample was 1,121(37.4%).

Results

(1) Awareness of climate change and nuclear power generation risk tradeoffs

Our respondents are aware of both climate change risk and the risks of nuclear power generator accidents, but at the same time, people are also aware of the benefits of nuclear power generators.

1) Climate change

Many people talk about unusual weather recently. Weather reporters often refer to "global warming." In our survey, we asked "Do you personally think that the world's climate is changing?"

In 2007, 95 percent answered "yes," but this number declined as 92 percent in 2011 and 91 percent in 2013.

Table 1.
Do you personally think that the world's climate is changing (in %)?

		Yes	No	DK
Japan	**2013 (n=1,121)**	91	7	3
	2011 (n=1,339)	92	5	3
	2007 (n=911)	95	3	2

Note: The percentages in the table may not always add up to 100% due to rounding. DK= Don't know.

2) How people think about climate change

Table 2.
Thinking about the causes of climate change, which, if any, of the following best describes your opinion?

	JP2013
Climate change is entirely caused by natural processes.	3
Climate change is mainly caused by natural processes.	10
Climate change is partly caused by natural processes and partly caused by human activity.	39
Climate change is mainly caused by human activity.	37
Climate change is entirely caused by human activity.	10
No opinion	1
Don't know	1

Why declined? Table 2 shows one of the possible answers to this. We do not have the exact same question in Table 2, but answers to the option "Climate change is entirely caused by natural processes (3%)" is increasing.

Table 3.
To what extent do you agree or disagree that the following energy sources will make a substantial contribution to reliable and secure supplies of electricity in Japan?

		(1)	(2)	(3)	(4)	(5)	NHOI	NO/DK
Biomass	JP2013	22	28	25	6	1	7	12
	JP2011	13	31	26	12	4		14
	JP2007	26	31	19	10	3		12
Coal	JP2013	3	9	23	25	36	*	5
	JP2011	2	16	28	36	11		8
	JP2007	3	18	29	34	9		7
Gas	JP2013	16	32	28	14	3	1	7
	JP2011	11	37	27	14	3		8
	JP2007	14	39	28	11	2		6
Hydroelectric power	JP2013	38	37	15	3	1	*	5
	JP2011	24	44	19	7	1		4
	JP2007	40	42	11	3	1		4
Nuclear power	JP2013	2	12	29	35	12	1	8
	JP2011	3	13	26	30	24		5
	JP2007	7	19	28	27	14		5
Oil	JP2013	4	16	34	32	8	*	5
	JP2011	4	20	29	34	8		5
	JP2007	4	20	33	30	8		5
Sun/solar power	JP2013	63	26	7	1	*	*	3
	JP2011	56	32	7	3	1		3
	JP2007	71	22	3	2	1		3
Wind power	JP2013	55	29	9	3	1	0	3
	JP2011	41	37	12	6	1		4
	JP2007	66	26	5	1	*		3

Note: In Japan, the question was "To what extent do you agree or disagree that the following energy sources will make a substantial contribution to reliable and secure supplies of electricity in Japan?" with a 5-point agree disagree scale. In Great Britain, the question was "How favourable are your overall opinions or impressions of the following energy sources for producing electricity currently?" The percentages in the table may not always add up to 100 percent due to missing values and rounding. NHOI= Never Heard of It; NO=No Opinion; DK= Don't Know; * denotes a value of less than 1 percent but greater than zero.

(2) Nuclear power generation's benefit and risk

1) Energy options

Table 3 shows the result of "To what extent do you agree or disagree that the following energy sources will make a substantial contribution to reliable and secure supplies of electricity in Japan?" We asked this question for primary energy sources, such as biomass, coal, gas, hydroelectric power, nuclear power, oil, solar power, and wind power. Renewable sources such as solar, wind, and hydro are more supported than fossil fuels such as coal, oil, and gas. Coal and nuclear are the least supported among this eight sources.

2) Risk and benefit comparison

Although nuclear power generation got less support than renewables, it contributed more than 30 percent of electricity generation in Japan before 2011. So Japanese power generation lost 30 percent of resources after the earthquake, and anti-nuclear policies changed after the accident. This impact was huge. People realized the contribution of nuclear power for their everyday lives. But how was the balance between risks and benefits of nuclear power generation? Table 4 shows the result.

The most supported option was “The risks of nuclear power far outweigh the benefits,” answered by 23 percent. About one fourth of our respondents thought that the risks of nuclear power generation are too great, even compared to its benefits. At the same time, 17 percent of our respondents chose “The benefits of nuclear power far outweigh the risks.” A significant number of people recognized its benefits.

Table 4.
From what you know or have heard about using nuclear power for generating electricity in Japan, on balance, which of these statements, if any, most closely reflects your own opinion?

	JP2013
The benefits of nuclear power far outweigh the risks.	17
The benefits of nuclear power slightly outweigh the risks.	15
The benefits and risks of nuclear power are about the same.	18
The risks of nuclear power slightly outweigh the benefits.	13
The risks of nuclear power far outweigh the benefits.	23
None of these	6
Don’t know	8

(3) Anxiety for nuclear power

Our respondents worry more about the management aspects of the nuclear power generations, rather than its technology. Table 5 shows the results.

Table 5.
To what extent do you agree or disagree with each of the following statements?

		(1)	(2)	(3)	(4)	(5)	NO/ DK
Conditional Support							
I am willing to accept the building of new nuclear power stations if it would help to tackle climate change.	JP2013	7	10	21	19	40	3
	JP2011	9	13	23	19	33	4
	JP2007	10	23	26	22	14	5
I am willing to accept the building of new nuclear power stations if it would help to improve energy security (i.e., a reliable supply of affordable energy).	JP2013	8	11	19	19	39	3
	JP2011	8	13	28	18	28	5
	JP2007	-	-	-	-	-	-
Alternatives to Nuclear Power							
We shouldn't think of nuclear power as a solution for climate change before exploring all other energy options.	JP2013	37	22	19	7	8	8
	JP2007	31	28	23	89	3	7
Promoting renewable energy sources, such as solar and wind power, is a better way of tackling climate change than nuclear power.	JP2013	48	31	13	2	1	4
	JP2011	51	31	11	3	2	4
	JP2007	48	32	12	3	1	5
Reducing energy use through lifestyle changes and energy efficiency is a better way of tackling climate change than nuclear power.	JP2013	34	35	19	5	2	5
	JP2011	36	36	18	5	2	4
	JP2007	37	37	17	3	1	6
Safety of Nuclear Power							
If we had safer nuclear power stations, I'd be prepared to support new ones being built.	JP2013	11	15	22	17	31	3
	JP2011	11	19	23	18	25	5
	JP2007	15	26	28	15	10	6
We should stop using nuclear power stations because we do not know how to store radioactive waste safely.	JP2013	29	22	28	8	7	6
	JP2011	26	23	31	8	6	6
	JP2007	15	26	28	15	10	6
Trust							
I feel confident that the Japanese government adequately regulates nuclear power.	JP2013(1)	2	6	20	27	41	5
I feel that current rules and regulations are sufficient to control nuclear power.	JP2013(2)	3	6	19	26	36	11
	JP2011(2)	3	6	19	26	34	12
	JP2007(2)	6	13	36	21	9	16

Note: the scale included the response options of (1) strongly agree, (2) tend to agree, (3) neither agree nor disagree,(4) tend to disagree, (5) strongly disagree. The percentages in the table may not always add up to 100 percent due to missing values and rounding. NO=No Opinion; DK= Don't Know; * denotes a value of less than 1 percent but greater than zero.

1) Conditional support

Nuclear power generation was a key for climate change prevention policies in Japan. But according to the response distribution, it seems that this position of nuclear power generation was not supported widely. More than half of the respondents opposed this idea; 59 percent chose "(4) tend to disagree, or (5) strongly disagree" for the sentence "I am willing to accept the building of new nuclear power stations if it would help to tackle climate change" and 58 percent for "I am willing to accept the building of new nuclear power stations if it would help to improve energy security (i.e., a reliable supply of affordable energy."

2) Alternatives to nuclear power

According to Table 3, our respondents supported renewables more than other resources. We can observe this tendency here again. More than half of the respondents chose "agree" or "strongly agree" for "We shouldn't think of nuclear power as a solution for climate change before exploring all other energy options." Nearly 80 percent of the respondents chose "agree" or "strongly agree" for "Promoting renewable energy sources, such as solar and wind power, is a better way of tackling climate change than nuclear power." Almost 70 percent agree or strongly agree with the statement "Reducing energy use through lifestyle changes and energy efficiency is a better way of tackling climate change than nuclear power." Those three results show that respondents preferred not to use nuclear energy as a first priority, and preferred to give other energy options or changing lifestyles more priority than nuclear.

3) Safety of nuclear power

People do not choose nuclear power generators because those plants are too old to use. These results show this is not true. Even though one fourth of the respondents agree to support "new ones being built," about half of the respondents disagree. About half of the respondents agree that "we should stop using nuclear power stations because we do not know how to store radioactive waste safely."

4) Trust

The most serious issues around nuclear power generation seem to be "trust" issues, these numbers show. About 68 percent of respondents chose "tend to disagree" or "strongly disagree" for the statement "I feel confident that the Japanese government adequately regulates nuclear power." Also, 62 percent of the respondents chose "tend to disagree" or "strongly disagree" for the statement "I feel that current rules and regulations are sufficient to control nuclear power."

(4) Health effects

The benefit of nuclear power generation is supplying electricity. Before 2011, more than 30 percent of electricity was made by nuclear power generators in Japan, and the Japanese government planned to increase this by 50 percent by 2030 before the accidents. And for the risks, health damage by radiation is the most serious issue. We asked this in two ways: One involved environmental impact in general, and the other involved the effects of the March 2011 accidents.

After the summer of 2011, many people avoided purchasing food from Fukushima and the surrounding area, because some were found to be contaminated by radiation by the Fukushima nuclear power plant explosions. Although producers made great efforts to avoid contamination and established a radiation checking system for agricultural foods, consumer response was slow.

Table 6 shows the consumers' attitudes towards those foods. It had been almost two years since the explosion when this survey was carried out, but more than 20 percent of the respondents answered that they still avoid purchasing agricultural products from those places that possibly were contaminated by the radiation.

Table 6.
Purchasing foods

		always	Often	Some-times	Not al all	NA	DK
When purchasing food, I check where it is produced.	JP2013	39.5	20.3	21.6	12.4	2.3	3.8
When purchasing agricultural products, I avoid purchasing those produced in possible radioactive contaminated area.	JP2013	20.7	15.4	20.1	34.9	4.1	4.9

Table 7 shows the evaluation of health impact by 1) environmental issues in general and 2) the March 2011 accidents on future generations. Almost half of the respondents answered that the March 2011 accidents had a great deal of impact on future generations both because of environmental issues in general and the radioactive materials from the accidents.

Table 7.
Health Impacts

		Great deal	Some effect	Neither nor	No effect	NA
Health impacts of environmental issues in general on future generations	JP2013	55.8	38.9	3.7	0.2	1.4
Health impacts of diffusion of radioactive materials by the 2011 March accidents on future generations	JP2013	49.9	39.5	6.8	0.7	3.1

Conclusion

In this paper, we show the result of our opinion survey done in February 2013, almost two years after the accidents. People "feel" changing weather patterns and climate change seem to be real. In spite of that, people cannot accept nuclear power generators, because risks from the nuclear power plants outweigh those benefits, and people cannot trust government and regulations who manage the power plants. Even two years after, people are afraid of health impacts on future generations by the contamination of radiation on agricultural production and avoid purchasing those from Fukushima.

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Analyzing Models of Sociology That Have an Affect on the Customer Behavior About Purchase Decision the Construction Materials at Seaside Town

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Abstract

This research aimed to study the sociological factors: the aggregation of community for purchasing, the price justice, the control of government and the corporate social responsibility of the business that have affected on customer behavior in deciding to purchase the construction materials at seaside towns: Cha-Am and Hua Hin, where have increasing condominiums, tourist attraction and shopping centre continuously. There were 400 customers who came to purchase products at the construction materials retail stores: Homepro, Homemart, Boonthavorn and Thaiwatsadu in Cha-Am and HuaHin areas. The research instrument consists of questionnaires concerning information of customer behavior and sociological factors. Statistical programs are used for data analysis such as frequency value, percentage, average and Chi-square.

The study revealed that the sociological factors are the most important for customers. Firstly, the control of government. Secondly, corporate social responsibility. Eventually, the aggregation of community for purchasing. According to the study, the researchers found a relationship between the sociological factors and the customer behavior; The justice of price, the control of government and the corporate social responsibility related to customer behavior about choosing the construction materials retail stores to buy products at the seaside towns.

Keywords: consumer behavior, construction material

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Background of the problem

Construction business plays an important role to economy and social of the nation. It is an important base to develop the nation and also be complement of human lives such as buildings or expansion of the houses. We need to purchase materials from Construction Material Industries. The Government must have a process or a standard to control the price justice and quality to not let the trader set the over price and take advantage from the customers. Nowadays, the tendency about the corporate social responsibility has increased continuously including the contraction material business. The entrepreneurs who run the business and has a been awareness of environment the community at the same time which use the ethical principle in the operation of the business and try to return the benefits to the community for making "Brand Image", the success of the business in long-term. For example, Boonthavorn co.ltd created an activity, CSR activity about giving back to community, by being a part of Thaiteeb 's project which cooperates with with Samutsongkram City Municipality. Boonthavorn built a restrooms with air-conditioners in the name of "Sabai U Ra by Boonthavorn" Another example, Home product center co.ltd who runs a business named Homepro,Construction Material Retail Store, had concern so they set up a fund for a project on children's restrooms, which aimed to improve restrooms in the schools all over Thailand. Hua Hin and Cha-Am are the famous towns and have highly grown up about economy because Hua Hin and Cha-Am have had the big amount of condominium, tourist attraction and shopping center so, demand of the customers about purchasing the construction material products become highly too.

So, the researchers pay attention to analyze the social factors that affected the customers behavior about deciding to buy the construction materials such as the aggregation of community for purchasing, the price justice, the controlling of government and the corporate social responsibility for developing the strategy of the construction material business to match with customer's behavior.

Objective

Study relation between the sociological factors that affected the customer behavior about purchase decision the construction materials at seaside towns; cha-Am and Hua Hin.

Hypothesis

The sociological factors such as the conglomeration of community for purchasing, the price justice, the control of government and the corporate social responsibility of the business related to the customer behavior about purchase decision the construction materials for seaside towns; Cha-Am and Hua Hin.

Scope of Research

4.1 Scope of the contents

Study about operational information of the construction material businesses in order to understand the factors that affected the customer behavior about deciding to buy the construction materials at seaside towns; Cha-Am and Hua Hin which focused on the sociological factors; the aggregation of community for purchasing, the price justice, the control of government and the corporate social responsibility.

4.2 Scope of population

The population in this study was the customers who came to buy the products in the construction material retail stores at seaside towns; Cha-Am and Hua Hin by using convenience sample method and 400 people of sample group.

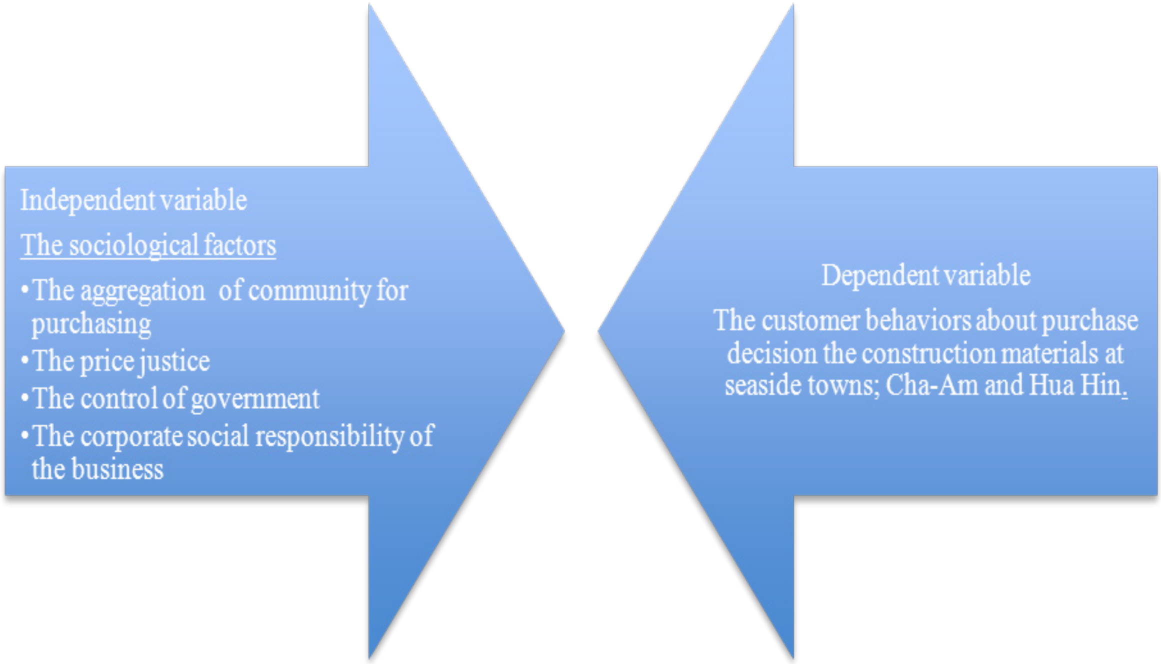
4.3 Scope of area

The areas in this study were the construction materials retail stores at seaside towns; 1.Homepro 2.Homemart 3.Boonthavorn 4.Thaiwatsadu.

4.4 Scope of time

The duration in this study took 3 months, from August 2012 to October 2012.

Conceptual Framework



Expected Benefits

1. Association studied and accepted about the process defined the price of construction materials that are fair or reasonable.

2. The construction material businesses must depend on the close community to make profit in long-term due to the world and external environments changed consecutively all time so, the business have to adapt and improved to catch up with the things that changed consecutively.

3. The aggregation of community was community empowerment in order to negotiate for reasonable price.

4. The construction material businesses could assimilate into people in the close community.

5. Created awareness about the social responsibility together between people in community with entrepreneurs

Definition of Terms

The aggregation of community for purchasing means the behavior that people buy products without cogitate about worthiness or real quality of products. They buy products because word of mouth, propaganda.

The price justice means the justice about the price that the buyer accept in the condition of seller by using comparison with general market price.

The controlling of government means the measure or regulation of government, which control pricing of the construction materials businesses to make price justice between the customer and the construction material entrepreneurs.

The corporate social responsibility of the business means operating business with good governance and good managing strategies by taking responsibility for social and environment, which will lead to a sustainable business development.

Result

Sociology factors	mean	Standard Deviation (S.D.)	Meaning
The aggregation of community for purchasing	4.40	0.59	The most important
The price justice	4.43	0.67	The most important
The control of government	4.56	0.58	The most important
The corporate social responsibility of the business	4.45	0.62	The most important
Total average	4.75	0.52	The most important

Part 1 Analysis result of the sociological factors that affected the customer behavior about purchase decision of the construction materials at seaside towns

The study revealed that the sociological factors were the most important to the customers' consideration that could sort from ascending to descending as follows; the control of government, the corporate social responsibility of the business, the price justice and the aggregation of community for purchasing.

Part 2 Test results of relation between the sociological factors and the customer behavior about deciding to buy the construction materials at seaside towns.

1. The aggregation of community for purchasing didn't relate to the customer behavior about deciding to buy the construction materials at seaside towns.

2. The price justice have related to the customer behavior about choosing the construction material retail stores in the seaside towns; Cha-Am and Hua Hin. Result of Chi-Square statistic, Pearson Chi-Square was 18.678, d.f was 9, Asymp. Sig. (2-sided) was 0.028 < 0 .05

3. The control of government related to the customer behavior about choosing the construction material retail stores in the seaside towns; Cha-Am and Hua Hin. Result of Chi-Square statistic, Pearson Chi-Square was 25.244, d.f was 12, Asymp. Sig. (2-sided) was 0.014 < 0 .05

4. The corporate social responsibility of the business related to the customer behavior about choosing the construction material retail stores in the seaside towns; Cha-Am and Hua Hin. Result of Chi-Square statistic, Pearson Chi-Square was 22.053, d.f was 12, Asymp. Sig. (2-sided) was 0.037 < 0 .05.

Discussion

1. From consideration in the important level of the sociological factors that affected the customer behavior about purchase decision of the construction materials, found that the customer gave precedence with the sociological factors were the most important to customer consideration by. The customers placed importance on the control of government to be first. Since the customer trusted that the government had the policy or rule to control the operation of the business sector to have justice with the customers such as reasonable price, product quality, business ethical etc. So, the customer paid attention to roles of the government that related to the construction material businesses for such as the controlling of the government about price mechanism in the construction material products in order to reduce taking advantage of the entrepreneurs from the customers which cause the cost of living to high more and become to the social problem later.

The second factor that the customers took an interest on the corporate social responsibility which the customers accepted the construction material businesses that had corporate social responsibility and had confidence that the businesses would have justification, clear operation of the business, business ethical and considered about the benefits of the customer mainly.

The third factor was the price justice because the customers thought that the process of the price justice would achieved when the construction material entrepreneurs had conscious about the business ethical which the customer could be aware of the ethical of the entrepreneur from the CSR projects of the business.

The customers paid attention about the aggregation of community for purchasing to be finally. In the buying about the construction material products, the most customers planed about product lists before they decided to buy the construction material products such as checking about needed products, amount of needed products, type of needed products and price of needed products. So, the purchasing without consideration about reasonable price, product quality and purchasing from propaganda didn't important factors for purchase decision of the construction material products

2. From consideration in the relation between the sociological factors and the customer behavior about purchase decision of the construction material found that

The aggregation of community for purchasing didn't relate to the customer behavior because the most customer planed about needed products list before they decide to buy the products in the contraction material retail stores and in the present, there are a lot of the construction material retail stores which expanded to everywhere and had also various classes of the construction material products, various prices and quality. So, the customer could choose to buy the contraction material products which were compatible with their lifestyle.

The factors about the price justice, the corporate social responsibility and the control of the government related to the customer behavior about deciding to buy the construction material at seaside towns. That was choosing the retail stores that sold the construction material by the customers took into consideration about the price justice that must suit with the product quality and also consider the corporate social responsibility of the construction material business because the most construction material retail stores that had business ethical and had the corporate social responsibility in operation, would also have responsibility with customer. And the customers realized the role of government which helped control the construction material businesses to have fairness with the customers and community.

Suggestions

This study that the customers realized about the price justice, the corporate social responsibility of the construction material entrepreneurs and the control of government extremely so, the government should have the clear policy about pricing standard for the construction material businesses which is fair for the customers and the entrepreneurs.

The construction material entrepreneurs could use the information or result of this research to improve and provide business plan to match with ethical principal and the corporate social responsibility.

"The business will subsist if the community has subsists. And if the community subsists, the business can subsist." So, the business and community have to interdependence. When the entrepreneurs run the business and have corporate social responsibility at the same time, the customers and community will have trusted and give supporting with the business in long-term.

Recommendation for further research

1. Expand the areas in this study to other scenery towns such as Chiang Mai, Pattaya, Phuket etc. Due to the scenery towns, the zone that the entrepreneurs frequently raise the price with the customers.

2. Study the sociology factors of other business that are four requisites of living.

3. Study characters, roles and the factors that affect the community empowerment negotiation with business sector.

4. Prepare campaign and educate the people more about social role and authority of them.

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The Reflection of Public Opinion in Print Media: The 13th General Elections in Malaysia

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Abstract

The freedom of expression and speech as declared in Universal Declaration of Human Rights (UDHR) Article 19 is the foundation of public opinion worldwide, with the mass media being the essential tool in opinion expression that will shape the public perception. The common premise is often to view media as powerful means to create public opinion. However, the increase of media literacy worldwide along with the revolution of media and the growth of society makes one wonder if media is still the tool to shape public opinion or merely a reflection of public opinion. Therefore, using Malaysia's 13th General Elections (GE13) as the subject of study, the researchers seek to understand if the media shapes public opinion, acts as the mirror to reflect public opinion, or serves as a combination of both. The methodology used was content analysis of eight Malaysian mainstream newspapers from four different languages, namely Bahasa Melayu, English, Tamil, and Chinese, over a span of 16 days with the theory of Agenda Building as the theoretical framework. The study concluded that for GE13 reporting, the media was the catalyst in setting the agenda for the public on the issues to think about. However, as the media coverage continued, public opinion was not only reflected in the print media, but also influenced and helped build the media coverage. This implies that the print media in Malaysia are still relevant, and they work in parallel with public opinion.

Keywords: Print Media, Public Opinion, General Elections, Agenda.

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Introduction

All over the world, the freedom of expression and speech as declared in Universal Declaration of Human Rights (UDHR) Article 19 is the foundation of public opinion worldwide, in which the right of everyone to have a voice is important. In Malaysia, Article 10 of Her Constitution further secured this freedom of speech. In this aspect, media have always been deemed the powerful tool to reach out to the masses and spearhead public views on happenings. This is especially true regarding crucial issues that affect the masses, such as political, economic, and social issues.

In the past, the rich and powerful who owned the media were the opinion leaders in society. However, with the advent of technologies and the increase of media literacy among laymen, the scenario has changed. Media are no longer owned and accessible only by the upper classes. At the same time, education helped in creating knowledgeable and critical-mass audiences, who are able to form opinions on issues independently.

This tug-of-war of the opinion power between the media and the maturing general public is reflected in the Malaysia media landscape. The media system in Malaysia started back in the 1960s, with the print media spearheading the way for the steady progress towards the various media such as radio, television, and the Internet.

This not only shows the importance of media in Malaysia, but the versatility of the public in using the media. Malaysians are actively using the media, spending 3.9 hours daily on television, followed by 2.5 hours on the Internet, 2.2 hours on the radio, and 0.6 hours on the newspapers in 2011. Concurrently, Malaysians' level of literacy increased from 94% in 2005 to 97% in 2011 (Media Planning Guide, 2012), shaping a more critical and powerful public.

It is always assumed that the media set the agenda for public discussion and hence shape public opinion. However, with the variety of media available to the audiences and the increasing level of literacy in Malaysia, does the assumption stay? Are the media still setting the agenda for the public opinion, or are media now only a mere reflection of the public's agenda? This study seeks to find the answer to this question using the Malaysian mainstream print media as the medium of study and the Malaysia's 13th General Election as the case study. This study is crucial to examining the role of press in the public opinion formation in Malaysia.

Studying Public Opinion and General Elections

Election is one of the most important components of Malaysia as a democratic country. Over the span of 56 years since its independence in 1957, Malaysia had gone through 13 general elections, done once in approximately every four years with the most recent 13th general elections done in 2013.

In recent years, the general elections had seen dramatic changes in more than one way, from the decision made by voters, issues raised by political parties and voters, and medium used by political parties to reach out to the voters. In 2004, Barisan Nasional (BN), the main ruling coalition had a landslide victory over the opposition, capturing 90% of the federal seats and winning all states except for Kelantan. However, in the following election (2008), BN was shocked as they suffered their worst defeat to Pakatan Rakyat (PR) the opposition. Not only did they lose four states and the two-thirds majority, the election saw the downfall of many of BN's prominent figures (Syed Arabi Idid & Chang Peng Kee, 2012).

Many reasons contributed to BN's great loss, and one of the reasons mentioned was the failure of BN to reach out to the younger urban voters using the new digital media as compared to the opposition (Tan J.E & Ibrahim Z, 2008). PR's strategy to reach out to the young urban voters through blogs, social media, and news portal was deemed successful. This went on to prove the power of the media in voter's decision-making. BN and the PR had since paid even more attention to the role of media during the election period (Usha Rajaratnam, 2009; Mohd Sani & Zengeni, 2010).

The 13th general elections proved to be a tight race between BN and PR, with BN winning with a slim margin. BN secured 133 seats compared to 89 by PR. It was BN's worst electoral performance since 1969, dropping further from its 140 seats in the 2008 general elections. But in terms of state legislatures, BN won nine out of the 12 states.

Through all the political tsunamis happening, the presses were actively involved in the coverage of the general elections. Many disputes were thrown and discussed by the people through the media, especially for the past two elections.

Public opinion is probably the loudest and most fragmentized during the period of general elections. General elections are when the people express what is in their thoughts and people are likely to make a stand on issues they believe are important. General elections also create an intense atmosphere when people use the media to find out the latest happenings, discuss the latest issues, and make their voices heard. Therefore, this study intends to capture the public opinion scenario during the exciting times leading up to the general elections.

This study is not the analysis of the results of general elections and how the press affects the outcome of the study. Rather, this study aims to understand the role of media in projecting and representing the public opinion in the run up to general elections.

Agenda Setting

This study uses the agenda setting theory as a perspective in understanding the media role in reflecting public opinion. The main premise of the agenda setting theory is that the media tell the mass audience what to think about (Cohen, 1963). In other words, the media sets the topic and issues for audience to select for discussion. According to Littlejohn (2002), this theory consists of a simple three-part linear process consisting of media agenda, public agenda, and policy agenda.

Research on media agenda understands how the media build and set the agenda by giving the public the issue to think about (Dearing and Rogers, 1996). Public agenda studies explore whether the media agenda actually shapes the public opinion. Lastly, policy agenda refers to studies involving policy actions in response to public agenda and media agenda.

With the changing media landscape and the increase of media literacy these days, does that change the linear process of agenda-setting? Focusing on media agenda and public opinion only, the researchers seek to understand if the print media in Malaysia still shape public opinion or if they are merely a reflection of public opinion. Media agenda are most crucial and public opinion can be clearly seen during the general elections, which is why this study used the 13th General Elections in Malaysia as the case study.

The Print Media Scenario in Malaysia

Malaysia is a country with rich diversity in terms of language, culture, and religion due to its multi-ethnic status. The Malays are the dominant ethnic group, followed by Chinese and Indians and the Bumiputra (natives) of Sabah and Sarawak. The ethnic groups are free to practice usage of their mother tongue under the Federal Constitution. Bahasa Melayu is the country's national language, and English is widely used. This diversity of languages is clearly reflected in Malaysia's mass media.

The print media is a strongly established in Malaysia since independence, and to date, there are 52 newspapers all over Malaysia, including daily, weekly, and regional newspapers. The newspapers' penetration level stands at 60.3%. These newspapers are differentiated by the different languages used by the different ethnic groups in the country (Faridah, Chang & Kuik, 2012). Ethnicity-based newspapers in Malaysia play important roles in disseminating information and reaching out to niche audiences. The print newspapers can be divided mainly into four languages, namely English, Bahasa Melayu, Chinese, and Tamil (Media Planning Guide, 2012). The newspaper with the highest circulation is *Sin Chew Daily* (407,483) a Chinese newspaper.

With the numerous media organizations, the government is still the mainstream media largest stakeholder as the print media are mostly owned or in some way linked with the ruling coalition (Kenyon & Marjoribanks, 2007). According to Anuar (2000), the mainstream media tend to be biased towards the government. However, in recent years, the emergence of the online media as the voice of the opposition is leveraging the power of the mainstream media.

It is interesting to note that while people are turning to the online media and deem the mainstream media as biased, the print media continue to stand the test of time with high circulation among the people. The print media remain as a reliable source of information for the election details, party manifestos, the candidacy, and the campaign during the run up to general elections.

Having this challenging landscape of the print media and its struggle to stay relevant to a versatile public in mind, this study is timely in understanding the role of the print media in reflecting the public opinion during the general elections to highlight the relevance of print media in recent times.

Therefore, this study chose the main eight daily newspapers from the four different languages in Malaysia. The newspapers were *Utusan Malaysia* and *Berita Harian* for Bahasa Melayu, *The Star* and *New Straits Times* for English, *Sin Chew Daily* and *Nanyang Siang Pau* for Chinese, and *Tamil Nesan* and *Malaysia Nanban* for Tamil.

The Present Study

This study proposes to understand the print media role during the Malaysia 13th general elections in reflecting the public opinion. It is important to refresh the role of print media to ensure that it remains relevant to the Internet-savvy generation. This study peeks into the public opinion as reflected in different newspapers to weigh the difference and similarities between different newspapers. This study also reexamines the notion that the media sets the agenda for the people or whether the media merely reflects the public opinion from the perspective of agenda setting theory.

Methodology

Quantitative content analysis was used to extract the data for this study. Content analysis was done on eight Malaysian mainstream newspapers from four different languages, namely Bahasa Melayu, English, Tamil, and Chinese. Newspapers chosen were *Berita Harian* and *Utusan Malaysia* for Bahasa Melayu, *The Star* and *New Straits Times* for English, *Tamil Nesan* and *Malaysia Nanban* for Tamil, and *Nanyang Siang Pau* and *Sin Chew Daily* for Chinese. The newspapers were chosen with a balance representation of major newspapers representing the four most commonly used languages in Malaysia.

The item collection period started on 24 April 2013, which was the day after nominations until the day of the general elections on 5 May 2013. Each news article on the general elections was counted as one unit of analysis.

The main instrument used was the coding form and coding book. The coding book functioned as an operation manual for all coders as they identified and coded each news article, whereas the coding form was the form on which they put down their analysis of the news article. In the coding form, the coders were required to note the date of the news, the title, the source of the news, and its representation, as well as the category of the news.

To ensure the reliability of the data, the coders were trained by the researchers prior to the coding process. Reliability of the data was also tested using the inter-coding reliability method. The data gathered then was keyed into SPSS for analysis. The analysis was done using descriptive statistic and cross tabulation.

Research Findings

From the content analysis done, Table 1 shows the sum of unit of analysis from each newspaper.

Table 1.
Newspapers and unit of analysis

Newspapers	Frequency	Percentage (%)
Sin Chew Daily	2069	27.6
Nanyang Siang Pau	1277	17.0
Berita Harian	936	12.5
Utusan Malaysia	768	10.2
New Straits Times	667	8.9
Malaysia Nanban	635	8.5
The Star	608	8.1
Tamil Nesan	539	7.2
Total	**7499**	**100.0**

The researchers discovered that the two Chinese newspapers, *Sin Chew Daily* and *Nanyang Siang Pau,* had the highest frequency of news articles regarding the general elections, with two Bahasa Melayu newspapers, *Berita Harian* and *Utusan Malaysia,* trailing after the Chinese newspapers. They were followed by the *New Straits Times*, *Malaysia Nanban*, *The Star,* and *Tamil Nesan*. Table 2 sums up the news sources that were quoted on the 13th general elections.

Table 2.
News sources

News Sources	Frequency	Percent
BN	2482	33.1
PR	1663	22.2
Government	1212	16.2
Editorial	1083	14.4
NGO	253	3.4
Reader	124	1.7
Others	682	9.1

From Table 2, it can be concluded that political parties were most prominently quoted by the print media. Barisan Nasional, being the main player in the print media, had the highest frequency of news credited to them, amounting to 33.1%. Barisan Nasional politicians were also quoted within their capacity as the ruling government, contributing to another 16.2% units of analysis.

The ruling coalition opinions were the most prominently covered by the print media during general elections. PR had its fair share of coverage at 22.2%, although it pales in comparison to Barisan Nasional. This is consistent with the fact that the ruling coalition is the biggest stakeholder in the print media industry.

The role of the print media organization itself as a player during general elections was proven when editorial columns contributed 14.4% of general election news, highest after political parties. This included the editorial analysis of the candidacy, the policies, and manifestos. This was followed by the public voices. The public voices can be divided into two different categories, namely the non-government organizations (NGOs) and the readers. The NGOs represented the people with special interest in certain areas, whereas the readers were laymen who spoke for themselves through the opinion columns and reader columns. The NGOs had 3.4% of coverage, whereas the readers had 1.7% items attributed to them. Throughout the general elections, the public voices contributed only 5.1% in the print media, amounting to 379 news items. Lastly, there are news sources that are laid under the category of others as they did not fit into any of the categories, amounting to 9.1%.

The findings showed that the print media did not give much coverage to public opinion, largely giving way to the political parties and the journalists. The NGOs had better coverage than the readers due to their influence in the sphere of community.

Using cross tabulation, Table 3 shows the amount of coverage given to the public opinion (NGOs and readers) as compared to the other sources within the same newspaper.

Table 3.
Cross tabulation across newspapers and news sources

Sources		Newspaper								Total
		UM	**BH**	**SC**	**NY**	**TS**	**ST**	**TN**	**MN**	
Public Opinion	Frequency	22	24	93	81	40	53	25	39	377
	% within newspaper	2.8%	2.6%	4.5%	6.3%	6.6%	7.9%	4.6%	6.1%	5.1%
Govt	Frequency	177	260	342	189	122	102	72	75	1339
	% within newspaper	22.5%	26.1%	15.3%	13.4%	18.7%	14.4%	12.4%	11.8%	16.7%
BN	Frequency	277	435	570	313	215	284	238	226	2558
	% within newspaper	35.2%	43.7%	25.5%	22.2%	32.9%	40.1%	40.9%	35.6%	32.0%
PR	Frequency	128	162	601	364	138	81	48	141	1663
	% within newspaper	16.7%	17.3%	29.0%	28.5%	22.7%	12.1%	8.9%	22.2%	22.2%
Editorial	Frequency	100	33	299	206	73	107	147	118	1083
	% within newspaper	13.0%	3.5%	14.5%	16.1%	12.0%	16.0%	27.3%	18.6%	14.4%
Others	Frequency	68	69	215	162	57	56	19	36	682
	% within newspaper	8.9%	7.4%	10.4%	12.7%	9.4%	8.4%	3.5%	5.7%	9.1%
Total	Frequency	768	936	2069	1277	608	667	539	635	7499
	% within newspaper	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*UM – *Utusan Malaysia*, BH – *Berita Harian*, SC – *Sin Chew Daily*, NY – *Nanyang Siang Pau*, TS – *The Star*, ST – *New Straits Times*, TN – *Tamil Nesan*, MN – *Malaysian Nanban*.

New Straits Times gave the most space for public opinion (7.9% out of its general elections coverage), followed by *The Star* (6.6%), *Nanyang Siang Pau* (6.3%), *Malaysia Nanban* (6.1%), *Tamil Nesan* (4.6%), *Sin Chew Daily* (4.5%), *Utusan Malaysia* (2.8%), and lastly *Berita Harian* (2.6%). Comparatively, voices of public opinions were strongly reflected in English language newspapers, followed by the Chinese and Tamil newspapers. The Bahasa Melayu newspapers had very low coverage of public opinions.

Table 4 shows the comparison of public opinions represented in newspapers for two different timeframes. The first timeframe was the second to last week before the general elections, from 20 April 2013 until 27 April 2013 (T1). The second timeframe was the final week before the general elections, from 28 April 2013 until 5 May 2013 (T2).

Table 4.
Comparison of public opinion between two different timeframes

Newspaper	Timeframe 1(T1)	Timeframe 2 (T2)	Total
The Star	31	9	40
	77.5%	22.5%	100%
Utusan Malaysia	15	7	22
	68.2%	31.8%	100%
New Straits Times	34	19	53
	64.2%	35.8%	100%
Sin Chew Daily	49	44	93
	52.7%	47.3%	100%
Tamil Nesan	11	14	25
	44.0%	56.0%	100%
Nanyang Siang Pau	34	47	81
	42.0%	58.0%	100%
Berita Harian	10	14	24
	41.7%	58.3%	100%
Malaysia Nanban	13	26	39
	33.3%	66.7%	100%
Total	197	180	377
	52.3%	47.7%	100%

The Star, *Utusan Malaysia*, *New Straits Times,* and *Sin Chew Daily* peaked on their public opinion reporting during T1. The researchers concluded that these newspapers were more focused on a bottom-up approach, whereby they gathered the public opinion during the first buildup towards the general election and focused more on the parties and candidates during T2. The public opinion in T1 influenced the reporting during T2 set to evaluate if the political parties lived up to the public expectation.

Tamil Nesan, Nanyang Siang Pau, Berita Harian, and *Malaysia Nanban,* on the other hand, had less reporting of public opinion during T1 and picked up the momentum during T2. These newspapers used a top-down approach, whereby the political parties and candidates were given much emphasis during both T1 and T2, and there was little emphasis on public opinion. The public opinion was reflected only on the final week before election. They are given room to discuss the political agenda, but only upon the agenda built by other representatives.

Conclusion

Public opinion is a pivotal element in deciding the political future of a country. This study discovered that generally, public opinion was not much reflected on the print media during the 13th general elections in Malaysia. The print media are sadly lacking in representing the people in its coverage. This phenomenon may be the cause of Malaysian younger urban voters now turning to the social media to make their voices heard. In order for the Malaysia print media to enhance its credibility and relevance to society, the print media must ensure that it pays attention to the public, one of its major stakeholders besides the owners of the media organization. The print media need to review its role in ensuring balanced reporting and fair reporting in this democratic country.

This study also discovered interesting patterns in which newspapers within the same language are likely to display the same trends in reporting. General elections received the most coverage by the Chinese dailies, followed by the Malay newspapers, while the English and Tamil newspapers are neck and neck with each other.

The comparison for the prominence of public opinion between two different timeframes proved that different newspapers have different ways of setting the agenda in their reporting. Public opinion was considered by *The Star*, *Utusan Malaysia*, *New Straits Times,* and *Sin Chew Daily* in setting relevant issues for general elections, whereas for *Tamil Nesan, Nanyang Siang Pau, Berita Harian,* and *Malaysia Nanban,* public opinion was reflected only on the issues that had been set up by other sources. All in all, while public opinion is not strongly reflected in the print media, the results of this study showed that the public opinion and discourse do affect the media reporting.

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Predictors for Environmentally Friendly Dispositions Among South Korean Publics: An analysis of 2010 ISSP data

Shin-Ock Chang [1]

Abstract

Environmental problems are considered among the most salient issues that global community faces in the 21st century. In this reason, understanding public orientations in relation to environmental problems are important. The paper aims at examining environmentally friendly orientations among South Korean publics by determining significant predictors for them. In this aim, ISSP (International Social Sciences Program) Survey Data collected in the year 2010 was analyzed.

Environmentally friendly orientations were defined in this study drawing upon three dimensions: (1) overall concern about environmental problems (the affective); (2) willingness to pay more tax as well as prices, and to reduce living standards out of concern for the environment (the conative); (3) practicing civic participations in environmental matters; and greening everyday practices (the behavioral). Socio-demographic, socio-economic, and cultural variables (e.g. age, gender, educational attainment, household income) were used to predict the orientations. Previous re

search pointed out that publics hold inconsistent/contradictory attitudes towards environmental problems (Chang 2004). This is indicated by significant predictors that turn out to vary depending upon in what way environmental problems are asked for. The paper aims at addressing this fragmented nature of environmentally friendly orientations of South Korean publics.

Keywords: environmentally friendly orientations; South Korea; public opinion; ISSP.

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Introduction

Environmental problems are among the most salient issues for global society to face in the 21st century. Public opinions regarding environmental problems help us to understand in what way environmental problems are considered in the mind of publics. Policy makers, law makers and civic activists can be informed of the public opinion and bring out better measures to solving the problems. The paper aims at identifying public opinions of South Koreans by determining significant predictors for environmentally friendly orientations. In this aim, the survey data of ISSP (International Social Sciences Program) collected for South Korea (hereafter Korea) in 2010 was analyzed.

In an attempt to examine Korean public's environmental dispositions, the paper pays attentions to the thesis of fragmented nature of environmental dispositions (Chang 2004). The thesis suggests that environmental dispositions are not wholly integrated when considered the affective, cognitive, conative, and behavioral dimensions as a whole. The fragmentation is indicated by empirical findings in a way that significant predictors of the four dimensions are often different as well as correlated in an opposite way. Also, diverse measures of the identical dimension relate to different predictors. This paper looks into affective, conative and behavioral dimensions of environmental dispositions. For determining predictors for the dimensions, the paper uses socio-demographic, political, economic, and cultural variables. The following sessions discuss further the fragmented nature of environmental disposition held by publics and report the results of analysis of ISSP 2010 survey data. The paper concludes with discussions that highlight the differentiated spheres of environmental dispositions held by Korean publics.

Literature Review

Who are environmentally friendly and why? These questions have interested many researchers since the 1970s. The interest was initiated in the United States observing the upsurge of environmental movement (Hannigan 2006). As such, the research inquiry was initially to know social bases of environmental movement in terms of core activists, possible supporters, and possible opponents in the population. This was also the major research topic in the 1970s and 1980s among environmental sociologists when the discipline emerged at that time. The long term research effort has produced bulk of research findings. Among several significant findings, the paper pays attentions to the fragmented thesis of public's environmental disposition (Dunlap and Jones 2002; Klingeberg et al. 1998; Van Liere and Dunlap 1981).

The thesis suggests that environmentally friendly orientations held by publics are often inconsistent and contradictory. This is called the thesis of fragmented nature of environmentally friendly orientations. The fragmentation thesis shows that the four generic dimensions of environmental dispositions in the form of affective, cognitive, conative, and behavioral do not concur well each other. In other words, those who are highly representative in the affective dimension are not necessarily to be the same way in the conative dimension; and those who show environmentally friendly disposition in the affective, cognitive, and conative are not necessarily to be highly representative in the behavioral dimension. In an empirical sense, correlation coefficients for the four dimensions are likely to be low. The fragmented nature of environmental disposition is also revealed in other way. Significant predictors for measures of each of the four generic dimensions often vary. In other words, orientations vary in their significant predictors according to in whatever ways the orientations are measured (Dunlap 2002). Therefore it suggests that any attempt to establish social basis in the population for environmental friendly orientations should be cautioned.

Data, Measurements of Variables, and Response Patterns

The data for analysis for this paper comes from ISSP (International Social Sciences Program) Survey dataset for Korean case, this collected in the year 2010. The dataset was prepared by the research team in the Survey Research Center of Seongkyunkwan University in Seoul. The data was collected by trained interviewers through face to face interviews; and respondents were selected with a simple random sampling. The total sample size is 1, 576.

For detecting environmentally friendly orientations by Korean publics for this paper, affective, conative and behavioral dimensions were shed light on. They are measured with:

- Overall concern about environmental problems (the affective dimension);

- Willingness to pay more tax, price, and to reduce living standards for the environment (the conative dimension);
- Practicing behaviors in everyday life in an environmentally friendly way (the behavioral dimension);
- Practicing civic participations in environmental issues (the behavioral dimension).

The conative and behavioral dimensions imply individuals' economic and political commitment for healthy natural environment. Figure 1 presents response patterns to the question of overall concern about environmental problems. It shows that concern about environmental problems is widely spread among Korean publics. Almost 60 per cent of people expressed great concern about environmental problems.

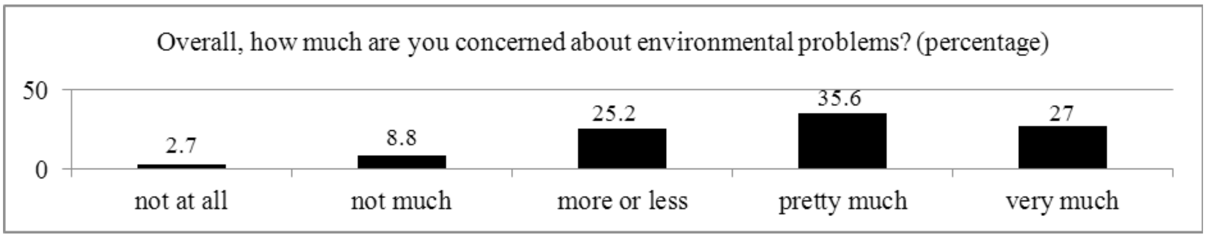

Figure 1. Distribution of responses to overall concern about environmental problems

The conative dimension was measured with questions that ask:

- Willingness to pay more tax for improving the quality of natural environment;
- Willingness to sacrifice more cost for improving the quality of natural environment;
- Willingness to reduce living standards for improving the quality of natural environment.

The three questions were measured with a five point scale ranging from 'very much willing to do' to 'not at all'. Therefore possible highest score for responses to the three questions is 15; and the least 3. Figure 2 shows response patterns to the three questions items above.

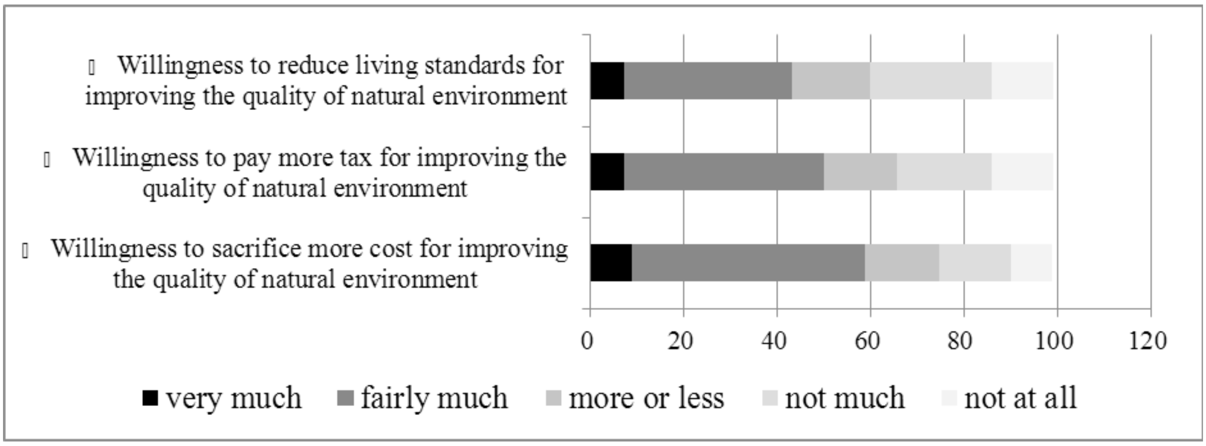

Figure 2. Distribution of responses to willingness to sacrifice in an economic term for the environment

Interestingly, the strongest intention is persistently expressed across the three measures of paying more tax, more prices, and reducing living standards. However, slightly more support was expressed for sacrificing more prices. To reduce living standard was found most challenging to practice: about 40 per cent expressed difficulty to do so.

Behavioral dimension was measured with practicing behaviors in everyday life in an environmentally friendly way. Question items ask how often a respondent practices behaviors such as:

- To make an extra effort to litter glasses, cans, plastics, and papers in a separate bin in order to recycle them;
- To make an extra effort to buy fruits and vegetables grown free from chemical fertilizers
- To reduce car driving out of concern about the environment
- To reduce using domestic energy and fuels out of concern about the environment
- Either to save or to reuse water out of concern about the environment
- To avoid buying certain products out of concern about the environment

The six items were measured with a four point scale ranging from 'always do' to 'never have done'. A composite variable was created including the responses to the six question items. Figure 3 presents actual response patterns to each of the question items. [2]

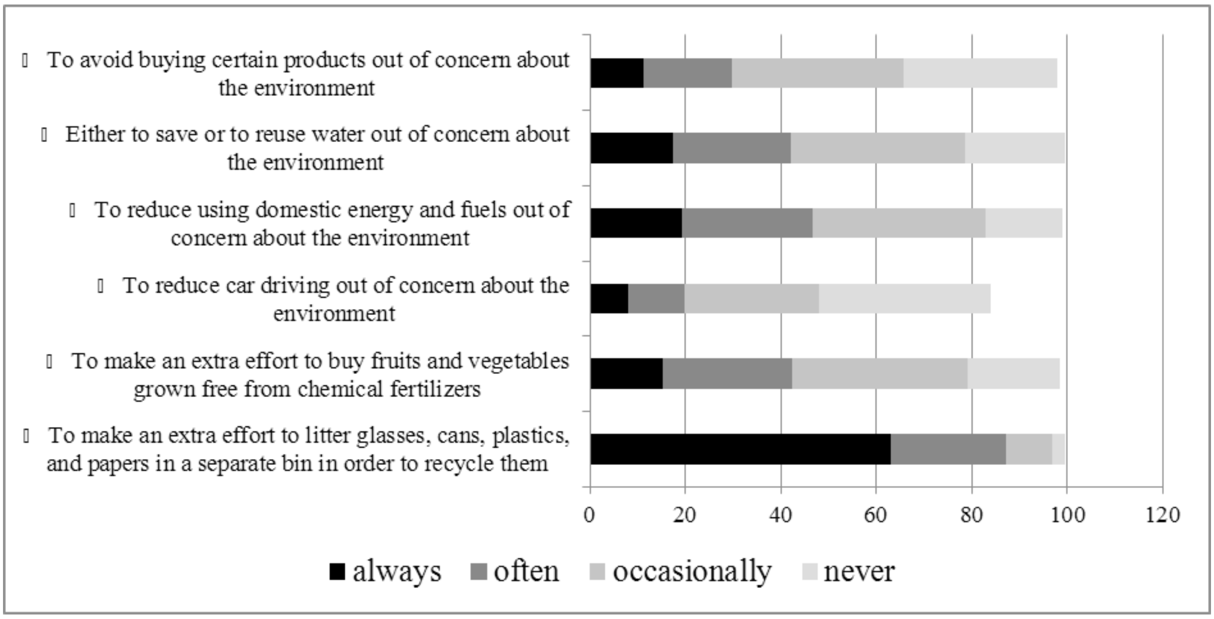

Figure 3. Distribution of responses to practicing everyday behaviors in an environmentally friendly way (%)

In terms of frequency for practicing everyday consumptive behaviors in an environmentally friendly way, Koreans' environmental dispositions are quite differentiated. However, the overall response suggests that Korean publics hold significantly strong disposition that cares the quality of natural environment. Recycling behavior is the commonest and most well established domain in this term. More than 80 per cent of people have already made it habit to littering glasses, cans, plastics, and papers in a separate bin to recycle them; and about 10 per cent of people have done it occasionally. However, this is not surprising considering the fact that recycling policy was institutionalized in 2002 in Korea with a monetary punishment in the case of violating the rule. In this sense, those people who have *never* done it (about 3 per cent) are more surprising to know.

2 Of the six variables consisting of the composite variable 'practicing everyday behaviors in an environmentally friendly way', reducing using car for the sake of the environment was not included for the analysis. This is because the response to this variable included too many invalid responses for the analysis such as 'difficult to choose' and 'not applicable', which counts 250 cases in total. Partly this indicates significant numbers without cars. This demands too many cases to lose for the analysis; and also leads to including car owners only.

Reducing using domestic energy and fuels is second most common behavior. About 50 per cent of people have made it routine; and another 40 per cent of people have done it now and then. Reducing (and reusing) water and buying organic agricultural products are practiced by almost equal numbers of people in the population. About 40 per cent of people have done it either always or often; and another 40 per cent of people have done it occasionally. However, environmental boycott is not a common thing in Korea in a relative term to recycling, organic buying and energy saving. About 30 per cent have made it a routine not to buy certain products out of concern for the environment. While about 36 per cent of people do this occasionally, about a third of people have never done this. Car using behavior is found to be the most challenging to correct for the sake of the environment. Among people who own their private cars, only 20 per cent of people reduce car using always and often; and about 30 per cent of people occasionally do so. 36 per cent of car owners never care to reduce car using for cleaning the environment.

Another behavioral dimension shed light on in this paper concerns political domain and represents civic participation in environmental matter. The questions ask respondents whether they have practiced for the past five years such as:

- Signing a petition for environmental problems
- Donating to environmental organizations
- Participating in a protest for environmental problems

The three items were measured with a dichotomy scale of 'yes' and 'no'. Therefore, the scale ranges from 3 to 6 indicating the higher the score, the stronger the degree of civic environmental participation.

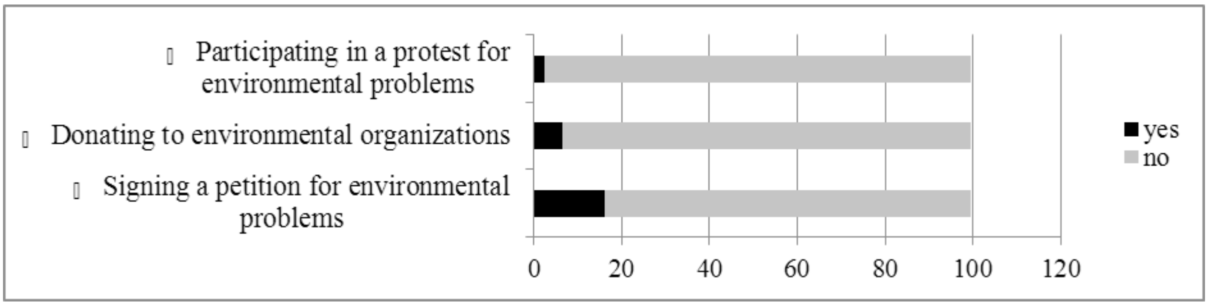

Figure 4. Distribution of responses to civic engagement in environmental issues (%)

Figure 4 shows experiences of practicing civic engagement in environmental matters. Less than 20 per cent of people have signed a petition for environmental problems. About 6 per cent of people have donated to environmental organization. About 3 per cent of people have participated in a protest for environmental problems. Those who have participated in the entire three activities account for 0.8 per cent. While 3.5 per cent of people have joined at least 2 activities, 15.9 per cent of people have joined one activity only. 79.3 per cent of people have never participated in any of the activities.

In order to determine significant predictors for these three variables, demographic, economic, political, and cultural variables are employed. They are: age, gender, educational attainment, monthly household income, self-ascribed status of social stratification, political ideology, religiosity, and religious affiliation. Table 1 shows how each of the independent variables are distributed in the sample.

Table 1.

Distribution of responses to the independent variables

Independent Variable	Distribution of responses in the sample (%)
Gender (*n* =1 576)	Male (47.2) Female (52.8)
Age group (*n* = 1 570)	18-39 (42.2) 40-59 (36.7) 60+ (20.7)
Educational attainment (*n* =1 574)	Primary level schooling (14.3) Secondary level schooling (38.9) Tertiary level schooling (40.7) Postgraduate study (5.9)
Monthly household income (*n* =1 379)	0-999 USD (13.4) 1,000-2,499 (19.7) 2,500-4,499 (28.7) 4,500-7,499 (17.7) 7,500-9,999 (3.9) 10,000+ (4.1)
Self-ascribed status of social stratification (*n* = 1 563)	The bottom (6.2) the lower (36.8) the middle (44.3) the upper (11.6) the top (0.3)
Political ideology (*n* =1 491)	The left (31.2) The center (32.9) The right (30.4)
Religiosity (*n* =1 556)	Strong (23.6) Middle (22.4) Weak (52.7)
Religious affiliation (*n* =1 576)	Buddhism (24.2) Christianity (24.0) Catholic (7.6) Other (1.0) The nonreligious (43.3)

Note. n is based upon valid cases (The cases that have responses of don't know and refuse to answer were deleted for the sample).

Women are more representative than men in the sample reflecting the gender composition in the population of Korea. Age is measured with an actual age in a way of counting the years after birth. Age group was represented in the sample in a way that twenties (including 18, 19 years old) and thirties accounting for about 42 percent of the total sample; forties and fifties being about 37 per cent; and over sixties about 21 per cent. The level of educational attainment is measured with the highest academic degree obtained. It is distributed in the sample in a way that: those who complete or drop out primary level schooling (including those who have not done any formal schooling) accounts for 14 per cent; secondary level schooling about 39 per cent; tertiary level schooling (including a 2-3 year college completion) accounting for about 41 per cent; and those with postgraduate level study accounting for about 6 per cent. Each category of educational attainment includes those with on-going study, drop out, and completion.

The sample is divided by the amount of monthly household income in a way that: those with monthly household income less than 1,000 USD comprising 13. 4 per cent (1 USD is equivalent to 1,000 Korean Won); about 20 per cent fall down at the income between 1,000 and 2,499 USD; another 20 per cent between 4,500 and 7,499 USD; about 30 per cent between 2,500 and 4,499 USD; about 4 per cent between 7,500 and 9,999 USD; and about 4 per cent more than 10,000 USD. Self-ascribed status of social stratification was also introduced in this analysis to see the effect of economic situation of individuals upon his/her environmental disposition. This variable was measured with a 10 point scale from the bottom to the top. 6 per cent of the respondents ascribed him or herself as located in the bottom rank in terms of social stratification. In contrast, 0.3 per cent of respondents put them into the top rank; and self-ascribed upper group accounts for about 12 per cent. In the between, the lower group consists of about 37 per cent, and the middle group about 44 per cent.

Koreans are divided almost equal numbers in political ideology. The left, the center, and the right in political ideology take a third of the pie each in distribution. Interesting enough, the extreme left and the extreme right also consist of equal numbers of 2.5 per cent each. As for the degree of religiosity, those who hold strong religiosity (this measured with attendance to religious services once per week, and several times per week) accounts for a quarter of the total sample; about 50 per cent of the total sample is categorized with those with weak religiosity, this being measured with attendance to religious services once per year, less than once per year, and never. A quarter of the sample is categorized with middle level of religiosity. This is measured with attendance to religious services several times per year, and one to three times per month. As for religious affiliation, Korean population divides between the nonreligious and the religious with the nonreligious slightly smaller accounting for about 43 per cent. Of the religious, Buddhists and Christians occupy the religious territory equally half accounting for 25 per cent each; and Catholics about 8 per cent.

Predictors of environmentally friendly dispositions in Korea

Multiple regression analysis technique was employed in order to determine the pure effect of each of the eight independent variables upon the dimensions of environmental dispositions used in this paper. The results are presented in Tables 2, 3, 4, 5.

Table 2 shows the results of regression analysis of overall concern about environmental problems. It is found that individuals' demographic, economic, political, and cultural characters do not stand strong in predicting his/her concern about environmental problems. However, what is noticeable is the effect of gender. Being a woman is the most persistent predictor for being concerned about environmental problems. The effect of being a woman consistently appeared through the six models (See Table 2). Compared to men, women are *more* concerned about environmental problems. However, the effect of age is mixed. Age appeared significant in Model 3 when gender, educational attainment, household income, and self-ascribed social stratification status were put into the regression equation. It also survived in Model 4 when political ideology variable was added to the equation. The effect of age is slightly stronger in Model 4. In both models, the coefficients indicated that the older are likely to be more concerned about environmental problems. However, the age effect disappeared with religiosity being considered (Model 5); and was still invisible when religious affiliations were additionally considered (Model 6). This indicates that age mediates religiosity. The factor of political ideology was a relatively consistent predictor. In model 4, 5, 6, its effect stood strong. When compared to the center in political ideology, the left are more concerned. While the factor of religious affiliations was not significant, religiosity was found to be the strongest factor to predict concern about environmental problems. It was found that the more religious, the more concerned.

For an economic commitment for the environment by paying more tax, price, and by reducing living standards, the whole picture is different (See Table 3). Gender made a difference in this sense; however it is men who are more willing to pay. The gender effect persisted through 7 models. The age effect is also persistent. Except for model 1, the age effect remained significant. It is the older that are more willing to commit for the environment in an economic term. The effect of educational attainment is also impressive. Its effect stood significant whatever the effect of other variables was considered; and it is a strongest predictor among demographic, economic, political, cultural factors employed in this research. The more educated were identified to be more willing to pay and to reduce living standards out of concern for the environment. Whereas the economic status of household is identified insignificant, individually perceived status of social stratification is a significant predictor: the higher the individually perceived status of social stratification, the more intention to pay more tax, price, and to reduce living standards for the environment. The factor of political ideology is a significant predictor as well. When compared to the center, the left showed stronger commitment in an economic term. As for concern about environmental problems, religiosity that was measured with attendance at religious services is a significant predictor for environmental commitment in an economic term. Those who are frequent visitors to religious services expressed greater commitment for the environment in an economic sense. Although the effect of religiosity remained significant even when concern about environmental problems was put into the equation, its significant level was slightly weaker than 0.05 (p=.058) (See Model 7 in Table 3). Religious affiliations also made differences in environmental monetary commitment. Compared to the nonreligious, Buddhists showed less intention. Of all, concern about environmental problems is the strongest predictor for verbally expressed intention to pay more tax and price, as well as to reduce living standards. Table 4 shows that gender and age are the two key factors that predict practicing

Table 2.
Coefficients of multiple regression analysis predicting overall concern about environmental problems

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	3.617 (.080)***	3.368 (.155)***	3.375 (.174)***	3.293 (.177)***	3.291 (.176)***	3.360 (.180)***
Female[1]	.081 (.052)***	.090 (.053)***	.097 (.056)***	.099 (.057)***	.069 (.058)*	.075 (.058) **
Age	.020 (.002)	.054 (.002)	.069 (.002)*	.090 (.002)**	.057 (.002)	.048 (.002)
Educational attainment		.059 (.022)	.054 (.025)	.037 (.025)	.022 (.025)	.007 (.026)
Household income			.028 (.006)	.023 (.006)	.019 (.006)	.018 (.006)
Self-ascribed social stratification status			-.031 (.018)	-.027 (.018)	-.027 (.018)	-.029 (.018)
Political ideology[2]						
The right				.010 (.069)	.008 (.068)	.008 (.069)
The left				.087 (.068)**	.079 (.068)*	.080 (.068)**
Religiosity					.137 (.011)***	.179 (.019)***
Religious affiliation[3]						
Buddhists						-.062 (.089)
Christians						-.053 (.123)
Catholics						.003 (.135)
R-squared	.007	.009	.012	.021	.038	.042
Adjusted R-squared	.006	.007	.009	.016	.032	.034
N	1,558	1,556	1,363	1,315	1,302	1,288

Note. *n* is based on valid cases. Values shown in each cell are beta and standard errors in parentheses.
[1] Male is a reference category, [2] The center is a reference category, [3] The nonreligious is a reference category.
* p <.05, ** p <.01, *** p <.001.

Table 3.
Coefficients of multiple regression analysis predicting willingness to commit in an economic term for the environment

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	9.944 (.228)***	6.735 (.430)***	5.831 (.478)***	5.623 (.488)***	5.523 (.486)***	5.638 (.493)***	3.424 (.538)***
Female[1]	-.109 (.148)***	-.069 (.147)**	-.075 (.156)**	-.069 (.156)**	-.092 (.159)**	-.080 (.160)**	-.102 (.155)***
Age	-.020 (.005)	.135 (.005)***	.171 (.006)***	.188 (.006)***	.166 (.006)***	.168 (.006)***	.157 (.006)***
Educational attainment		.270 (.061)***	.218 (.070)***	.212 (.069)***	.208 (.069)***	.204 (.070)***	.203 (.068)***
Household income			.043 (.018)	.037 (.017)	.035 (.017)	.030 (.017)	.024 (.017)
Self-ascribed social stratification status			.102 (.049)***	.095 (.049)**	.093 (.045) **	.087 (.049)**	.093 (.048)**
Political ideology[2]							
The right				-.011 (.189)	-.013 (.188)	-.019 (.189)	-.027 (.183)
The left				.088 (.187)**	.083 (.186)**	.084 (.243)**	.062 (.181)*
Religiosity					.115 (.03)***	.129 (.053)**	.090 (.051)
Religious affiliation[3]							
Buddhists						-.073 (.243)*	-.059 (.236)
Christians						-.016 (.337)	-.005 (.326)
Catholics						.021 (.369)	.019 (.356)
Environmental concern							.238 (.075)***
R-squared	.012	.059	.073	.080	.095	.102	.156
Adjusted R-squared	.011	.057	.070	.075	.090	.094	.148
n	1,544	1,542	1,356	1,310	1,297	1,283	1,280

Note. . *n* is based on valid cases. Values shown in each cell are beta and standard errors in parentheses.
[1] Male is a reference category, [2] The center is a reference category, [3] The nonreligious is a reference category.
* p <.05, ** p <.01, *** p <.001.

Table 4.
Coefficients of multiple regression analysis predicting practicing everyday behaviors in an environmentally friendly way

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	10.397 (.251)***	9.193 (.474)***	9.256 (.538)***	9.236 (.546)***	9.117 (.546)***	9.256 (.554)***	6.736 (.606)***	6.019 (.607)***
Female[1]	.139 (.161)***	.152 (.163)***	.156 (.174)***	.162 (.175)***	.146(.178)***	.143 (.180)***	.125 (.175)***	.147 (.174)***
Age	.220 (.005)***	.271(.006)***	.267 (.007)***	.277 (.007)***	.260 (.007)***	.241 (.180)***	.229 (.007)***	.196 (.007)***
Educational attainment		.091 (.067)**	.091 (.078)*	.077 (.078)*	.072(.078)*	.062 (.079)	.059 (.077)	.022 (.077)
Household income			-.030(.020)	-.040 (.020)	-.041(.019)	-.042 (.020)	-.046 (.019)	-.054 (.019)
Self-ascribed social stratification status			.015(.054)	.007 (.055)	.007 (.055)	.009 (.056)	.015 (.054)	.004 (.053)
Political ideology[2]								
The right				.000 (.212)	-.006 (.212)	.000 (.213)	-.002 (.207)	.003 (.204)
The left				.053 (.209)	.043 (.209)	.049 (.210)	.029 (.204)	.016 (.202)
Religiosity					.098 (.033)***	.149 (.059)**	.105 (.058)*	.092 (.057)
Religious affiliation[3]								
Buddhists						.004 (.273)	.019 (.265)	.029 (.262)
Christians						-.066 (.378)	-.055 (.367)	-.056 (.361)
Catholics						-.006 (.416)	-.007 (.404)	-.013 (.397)
Environmental concern							.239 (.084)***	.196 (.086)***
Willingness to pay								.182 (.182)***
R-squared	.068	.073	.076	.088	.099	.100	.147	.184
Adjusted R-squared	.067	.071	.072	.083	.093	.093	.155	.176
N	1,511	1,511	1,334	1,294	1,281	1,269	1,267	1,260

Note. . *n* is based on valid cases. Values shown in each cell are beta and standard errors in parentheses.
[1] Male is a reference category, [2] The center is a reference category, [3] The nonreligious is a reference category.
* p <.05, ** p <.01, *** p <.001.

Table 5.
Coefficients of multiple regression analysis predicting civic engagement in environmental issues

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	1.332 (.043)***	.806 (.081)***	.780 (.094)***	.751 (.098)***	.748 (.099)***	.773 (.100)***	.620 (.113)***	.471 (.113)***
Female[1]	-.032 (.028)	.002 (.028)	.010 (.030)	.015 (.031)	.002 (.032)	.001 (.032)	-.005 (.032)	.017 (.032)
Age	-.040 (.001)	.095 (.001)**	.090 (.001)**	.097 (.001)**	.081 (.001)*	.061 (.001)	.057 (.001)	.023 (.001)
Educational attainment		.235 (.011)***	.201 (.014)***	.186 (.014)***	.179 (.014)***	.175 (.014)***	.176 (.014)***	.132 (.014)***
Household income			.085 (.003)**	.080 (.004)*	.078 (.004)*	.066 (.004)*	.064 (.004)*	.058 (.003)
Self-ascribed social stratification status			-.001 (.009)	.000 (.010)	-.001 (.010)	.000 (.010)	.002 (.010)	-.015 (.010)
Political ideology[2]								
The right				-.004 (.038)	-.006 (.038)	.000 (.038)	-.001 (.038)	.006 (.038)
The left				.077 (.038)*	.075 (.038)*	.078 (.038)*	.070 (.038)*	.059 (.038)
Religiosity					.067 (.006)*	.181 (.011)***	.166 (.011)**	.149 (.011)**
Religious affiliation[3]								
Buddhists						-.041 (.049)	-.036 (.049)	-.023 (.049)
Christians						-.135 (.068)**	-.131 (.068)*	-.132 (.067)**
Catholics						-.059 (.075)	-.059 (.075)	-.065 (.074)
Environmental concern							.082 (.016)**	.029 (.016)
Willingness to pay								.215 (.006)***
R-squared	.003	.038	.046	.048	.052	.056	.062	.101
Adjusted R-squared	.001	.036	.043	.043	.047	.048	.053	.092
n	1,561	1,559	1,364	1,313	1,300	1,286	1,283	1,275

Note. *n* is based on valid cases. Values shown in each cell are beta and standard errors in parentheses.
[1] Male is a reference category, [2] The center is a reference category, [3] The nonreligious is a reference category.
* p <.05, ** p <.01, *** p <.001.

everyday behaviors in an environmentally friendly way. Their effects remained strong through the entire models.

Women compared to men, and the older were found to be more environmentally friendly in terms of their way of behaving in everyday life. However, the effect of educational attainment being impressive, it was not consistent. From model 2 through to model 5, the effect of educational attainment was significant; however, it disappeared when religious affiliations and other affective, conative aspect of environmental dispositions were considered (See model 6, 7, 8). Religiosity was identified once again as important to tell the difference even in behavioral dimension. As with concern about environmental problems and willingness to practice environmental monetary commitment, it is those holding higher religiosity that lead everyday life in a greener way. Concern about environmental problems and willingness to practice environmental monetary commitment are also significant in predicting the green everyday practice (See model 7, 8).

Educational attainment, political ideology, religiosity and religious affiliations are the significant and stable predictors for civic engagement in environmental issues (See Table 5). While the effect of educational attainment survived strong regardless of whatever other effects were considered, it is the strongest predictor from model 2 through to model 7. For model 8, the monetary environmental commitment is the strongest. As for religiosity, those with higher religiosity were identified to practice active civic engagement; and so did those with progressive political ideology (the left). Compared to the nonreligious, Christians have not done much civic engagement in environmental issues. What is noticeable is the effect of household income. Those with higher income on a household level were shown to be more active than their counterparts. The effect of age is mixed. From model 2 to 5, the age effect is impressive indicating the older is more likely to participate in environmental civic engagement. However when the effects of religious affiliations, concern about environmental problems, and willingness to pay variables were additionally controlled, the age effect did not survive. It was found that environmental monetary commitment is the strongest predictor for environmental civic engagement (See model 8 in Table 5).

Discussion and Conclusion

Using the 2010 ISSP data of Korea, the paper has aimed to determine significant predictors for environmentally friendly orientations among Korean publics. In this aim, environmentally friendly orientations were approached in the affective, conative, and behavioral dimensions. While concern about environmental problems represents the affective dimension, willingness to pay more tax as well as prices, and willingness to reduce living standards for the environment does the conative. Two behavioral dimensions that are based at different spheres of social life were included for the analysis: political civic engagement and economic green behavior. To identify predictors for the measures of environmental dispositions, this research examined the effect of: gender, age, and educational attainment, household income on a monthly basis, self-identified social stratification status, religiosity, and religious affiliations.

The key interest of this research was to determine the degree to which the diverse measures of environmental dispositions produce consistent results in their predictors. The findings showed little supported for this. It is religiosity only that was the consistent predictor for all the dimensions examined in this paper indicating as religiosity level increases, so does environmentally friendly dispositions. On contrast, the effect of gender is mixed and contradictory. Women are more concerned than men about environmental problems, and are much greener in everyday practices than are men. However, it is men that expressed greater intention to commit for the environment through economic measures. The gender effect in environmental civic engagement was absent. The effect of educational attainment is relatively consistent; however its effect was not present for concern about environmental problems. The age effect is significantly consistent; however it is the older who are more environmentally friendly. The degree of age effect is much greater for environmental commitment in an economic term and everyday green behaviors than do the effects of the other independent variables. What is noticeable is the behavior of household economic status measured by monthly income. Its effect was only significant for the variable environmental civic engagement. Contrary to the established belief, its effect was not present for the dimensions that have economic implications such as economic commitment for the environment and practicing everyday behaviors environmentally friendly way. However, further study must determine the effect of individual income to confirm this.

The findings indicate that each dimension of environmental dispositions draws upon specific factors. The affective aspect of environmental disposition is gendered dimension in a way that women are more concerned that are men. The conative aspect for which economic commitment was measured in this research is based at age and educational attainment. The green behavior dimension is gendered as well as age based; but environmental civic engagement is based at educational attainment. However, the affective and conative dimensions of environmental dispositions best predicted the two behaviors. It suggests that psychological variables would predict better the behavioral dimensions than do individuals' social locational variables.

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Integrated Marketing Communication Affect to Behavioral Decision on Herbal Beauty Products of Female's Elderly in Western Thailand

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Abstract

The research aimed to study the integrated marketing communication (IMC) affect to behavioral decision of female's elderly on herbal beauty products in Western Thailand. Samples of this research were female's elderly aging from 60 years old of four hundred consumers who using herbal beauty products and living in the Western Thailand. Questionnaire is used as a tool to conduct a survey and to collect the data.

Most samples were living at Prachuap Khiri Khan aging between 60-65 years old, having monthly income between baht 5,001-8,000 holding less than or equivalent high school educations or vocational certificate and self- employed. They using herbal beauty products everyday over a period of 6- 12 months selecting Hair care and Body care. The popular brand is "Abhibhubejhr" cost baht 201-300 for each time to pay and buy twice times per month purchasing from agent. Butterfly-pea is the most herbal selected. The respondents have familiar the most perception of herbals properties of Lemon, Turmeric, Coconut oil, Gotukola, Phlai (Cassumunar), Tamarind, Aloe vera, Butterfly-pea, Citrus (Ma-krut), Tomato, Honey, Cucumber

Integrated marketing communication (IMC) affect to behavioral decision of female's elderly on herbal beauty products in Western Thailand. Samples with different Province, Age, Monthly income, Education level and career had different to behavioral decision of female's elderly on herbal beauty products in Western Thailand. Overall Integrated Marketing Communication (IMC) had affected to behavioral decision of female's elderly on herbal beauty products in Western Thailand.

Keywords: Integrated Marketing Communication (IMC), The perception of herbals properties, Herbal beauty product.

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Introduction

People all over the world are becoming more health-conscious. Likewise, traditional herbal remedy is now looked upon by more and more people as the alternative to beauty products. Indeed, many herbal have been found to cause fewer side effects. Hannah Khamille Bayalan,(2008) The effectiveness of modern herbal practice suggests that we begin our search by understanding the complete meaning of herbalism. Herbs are grown and collected from all over the world. There is nothing magical about an herb; effective medicinal herbs can be found everywhere that plants grow (Act, B.E. 1967 cited in Sukhumarn Mancharoen, 2000). Herbal is the medical that derived from plants, animals and natural conditions does not change the internal structure can be used to treat various diseases and maintenance of the body. Pitiwat Sasom. (2010:22-23) herbal cosmetic has the meaning as commonly understood and know that it means a mixture of herbal cosmetics. Whether from plant, animal or mineral, and covers various forms. From all products that contain herbs such as powder face scrub, herbal shampoo, herbal or a mixture of herbal extracts such as lotion or cream.

The government has promoted herbal beauty products in Thailand to link the benefits of herbs in various business sectors. There are currently more interested in herbal beauty products. The herbal beauty products have more benefit than synthetic products. Consumers are focused on product selection and meticulous beauty to all.

Especially, the elderly females are very concerned with aging. It is an opportunity for entrepreneurs about beauty products as a channel for the promotion of the public. Sunanda Sharma and Kashmiri Lai (2012) had explained marketing strategies related to consumer behavior are made to beat cut throat competition in global context. In modern times, prediction of consumer behavior is much essential for prosperity of the business. Its prediction and strategy formulation is a challenge for the management of any business organization. Only those organizations that formulate and implement consumer oriented marketing strategies can survive in global competitive era.

The market for herbal beauty products has seen a steady growth. Herbal cosmetics are increasingly popular among teenagers and working women. Bangkok Bank (n.d.). Due to the increasing interest in herbs and the availability of a wide variety of herbal plants in Thailand, the market prospects for herbal products, both domestic and export, look bright. According to the latest figures, the market value of herbal products in Thailand totals about Baht 30,000 million a year. The market has been growing by at least 20 percent annually. Total value of the domestic market amounts to about 2 billion Bahts. The rate of growth has been about 30 per cent a year. Regarding export, significant outlets for Thai herbal cosmetics are mostly in Asia -- Japan, Hong Kong, India, Singapore and countries in the Middle East. In addition, the U.S. and China are two new markets with strong potential.

Another important factor, which is a tool that makes the communication between sellers and buyers to incentives and reminiscent a positive attitude that cause the purchasing behavior is integrated marketing communication (IMC) Research and Markets (n.d.). define that is a strategic-business process used to plan, develop, execute, and evaluate coordinated and measurable persuasive brand communication programs over time with consumers, customers, prospects, and other targeted, relevant external and internal audiences. IMC grew out of the need for marketing organizations to move beyond functionally driven, internally focused approaches to marketing and communication.

If the entrepreneur has developed the knowledge and able to improve the IMC strategy to communicate information consistent behavior and response to the customer needs. It will be makes an entrepreneur can operate or related to beauty products from herbs effectively and have more opportunity to earning. (Kotler and Keller, 2009 cited in Isa Kokoi, 2011) discuss that attitudes are formed through experience and learningand that attitudes influence buying behaviour. Consequently, people sometimes ignore normatively relevant information such as base-rates, and sometimes use base-rate information in an appropriate fashion. Hence an important question in current decision research is the identification of the task conditions that determine when normatively important information like base-rates will and will not be used (Gigerenzer et al 1988; Ginossar & Trope 1987 cited in John W. Payne et al 1992) Blackwell, Miniard and Engle. (2006) Stages of the Buying Decision Process are following as Problem Recognition, Information Search, Evaluation Alternatives, Purchase Decision and Post Purchase Behavior. All five stages are affecting of the consumer decision when they decide to buy the products. Many years, scholars have studied continually in theory that related to herbs and integrated marketing communications (IMC) such as Jittima Sirimongkol (2011). Product factor and the integrated marketing communications affecting Female decision behavior on skin care and beauty clinic in Bangkok Metropolitan Area. Overall integrated marketing communications (IMC) in category of personal sale had relationship with female decision behavior on using service of skin care and beauty clinic in Bangkok metropolitan area at statistical significant of 0.05 levels. Whereas, category of direct marketing and activity based marketing had very low positive relationship with female decision behavior on using service of skin care and beauty clinic in Bangkok metropolitan area at statistical significance of 0.01 levels.

From all mentioned above that I interest to research about Integrated Marketing Communication affect to behavioral decision on herbal beauty products of female's elderly in Western Thailand. This enables the herbal beauty products are known for customer's acceptance and including information has led to develop and improve the opportunity in herbal beauty products marketing.

Objectives of the study

1. The main objectives of the present study are:To study the relations between the perception of Integrated Marketing Communication and behavioral decision on herbal beauty products of female's elderly in Western Thailand.
2. To analyze the result and apply to use for Integrated Marketing Communication and behavioral decision on herbal beauty products of female's elderly in Western Thailand

Research methodology

The research method used in this study was quantitative focusing in survey research. Samples of this research were female's elderly aging from 60 years old of four hundred consumer who using herbal beauty products and living in the Western Thailand; PRACHUAP KHIRI KHAN, PHETCHABURI, KANCHANABURI, RATCHABURI, TAK. Questionnaire is used as a tool to conduct a survey and to collect the data consist of 4 parts are 1) General information 2) perception in herbal properties 3) Integrated Marketing Communication (IMC) 4) Behavioral decision on herbal beauty products. This enabled convenient analysis of the results as the data was easily available in SPSS for Windows program. Statistical data analyses are Frequency, Percentage, Mean, Standard Deviation and Pearson product moment correlation coefficient.

Conceptual Framework

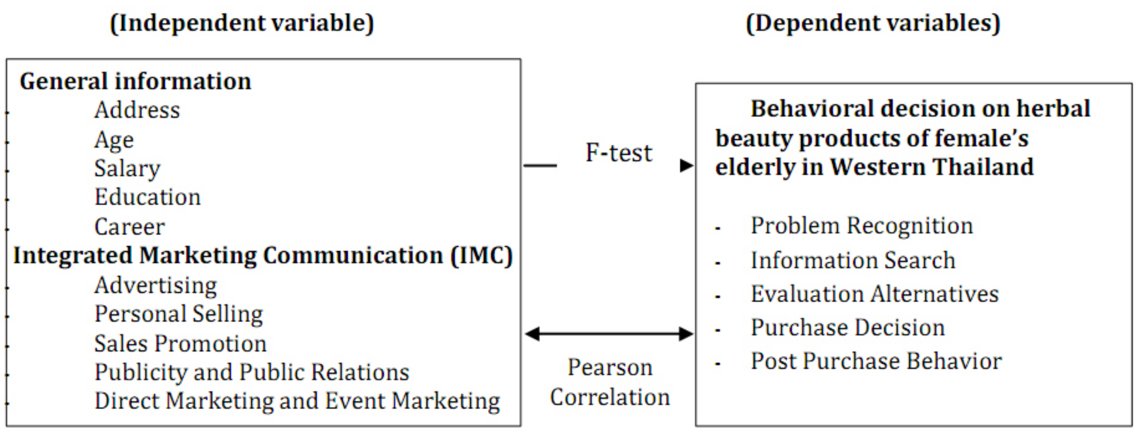

Figure 1. Conceptual Framework

Result

Part 1) General information

Most samples were living at PRACHUAP KHIRI KHAN aging between 60-65 years old, having monthly income between baht 5,001-8,000 holding less than or equivalent high school education or vocational certificate and self- employed. (32%, 42%, 35%, 64% and 32% Respectively) They using herbal beauty products everyday over a period of 6- 12 months selecting Hair care and Body care. The popular brand is "Abhibhubejhr" cost baht 201-300 for each time to pay and buy twice times per month purchasing from agent. Butterfly-pea is the most herbal selected. (86%, 30%, 33%, 37%, 24%, 42%, 34%, 40%, 50%, 34% and 23% Respectively).

Assumption 1: the elderly female have different in general information including address, age, monthly income, education and career affecting to the different decision to use herbal beauty products.

The result found the different in general information including address, age, monthly income, education and career affecting to the different decision to use herbal beauty products. Consistent with (Siriwan Serirat, et al, 2538: 41-42 Cited in Jittima Sirimongkol. 2011: 12-13) defined Demographic characteristics including age, gender, marital status, income, occupation, education, these are the criteria used in market segmentation. The important demographic characteristics of the population and the statistical measurement that helps determine the target market. There are easy-to-measure variables.

Part 2) Perception in herbal properties

The respondents have familiar the most perception of herbals properties of Lemon, Turmeric, Coconut oil, Gotukola, Phlai (Cassumunar), Tamarind, Aloe vera, Butterfly-pea, Citrus (Ma-krut), Tomato, Honey, Cucumber (61.8%, 89.3%, 59.0%, 52.3%, 73.5%, 87.5%, 84.8%, 84.3%, 87.3%, 79.5%, 85.5%, 69.3% , respectively)

Part 3) Integrated Marketing Communication (IMC)

Table 1.
Mean and Standard Deviation showing the result in Integrated Marketing Communication (IMC)

Integrated Marketing Communication (IMC)	**Level of perception**		
	Mean $\bar{x}$	**Standard Deviation (SD)**	**Meaning**
1. Publicity and Public Relations	2.767	1.109	median
2. Advertising	3.090	1.007	median
3. Personal Selling	2.235	1.331	low
4. Sales Promotion	3.292	.847	median
5. Direct Marketing and Event Marketing	3.290	.929	median
Total	**2.782**	**1.062**	**median**

From Table 1 Mean and Standard Deviation showing the result in Integrated Marketing Communication (IMC) of female's elderly in Western Thailand. The total level of perception is median ($\bar{x}\bar{x}$ = 2.782) It consist of Publicity and Public Relations ($\bar{x}\bar{x}$ = 2.767) Advertising ($\bar{x}\bar{x}$ = 3.090) Sales Promotion ($\bar{x}\bar{x}$ = 3.292) Direct Marketing and Event Marketing ($\bar{x}\bar{x}$ = 3.290) and Personal Selling ($\bar{x}\bar{x}$ = 2.235) is low level of perception.

Part 4) behavioral decisions on herbal beauty products

Table 2.
Mean and Standard Deviation showing the result in behavioral decision on herbal beauty products

Behavioral decision on herbal beauty products	Level of perception		
	Mean $\bar{x}$	**Standard Deviation (SD)**	**Meaning**
Total of Problem Recognition	**3.887**	**.698**	**High**
Total of Information Search	**3.595**	**.623**	**High**
Total of Evaluation Alternatives	**3.857**	**.651**	**High**
Total of Purchase Decision	**3.672**	**.656**	**High**
Total of Post Purchase Behavior	**3.753**	**.589**	**High**

From Table 2 Mean and Standard Deviation showing the result of the total level of perception in behavioral decision on herbal beauty products of female's elderly in Western Thailand. All of the total level of perception is high. Problem Recognition ($\bar{x}\bar{x}$ = 3.887), Information Search ($\bar{x}\bar{x}$ = 3.595), Evaluation Alternatives ($\bar{x}\bar{x}$ = 3.857), Purchase Decision ($\bar{x}\bar{x}$ = 3.672) and Post Purchase Behavior ($\bar{x}\bar{x}$ = 3.753)

Assumption 2: Integrated Marketing Communication (IMC) including advertising, personal selling, sales promotion, publicity and public relations, direct marketing & event marketing are correlated with the different decision to use herbal beauty products (Table 3)

The result found as following:

The problem recognition in behavioral decision on herbal beauty products of female's elderly in Western Thailand is low correlation with direct marketing & event marketing, personal selling and sales promotion.

The information search in behavioral decision on herbal beauty products of female's elderly in Western Thailand is low correlation with all of Integrated Marketing Communication (IMC) including advertising, personal selling, sales promotion, publicity and public relations, direct marketing & event marketing.

The evaluation alternatives in behavioral decision on herbal beauty products of female's elderly in Western Thailand is low correlation with publicity and public relations, direct marketing & event marketing, personal selling and sales promotion.

The purchase decision in behavioral decision on herbal beauty products of female's elderly in Western Thailand is low correlation with personal selling and sales promotion.

The post purchase behavior in behavioral decision on herbal beauty products of female's elderly in Western Thailand is low correlation with personal selling and sales promotion.

Table 3.
Relation of Integrated Marketing Communication (IMC) and behavioral decision on herbal beauty products

Customer Behavior	Problem Recognition		Information Search		Evaluation Alternatives		Purchase Decision		Post Purchase Behavior	
Integrated Marketing Communication (IMC)	r	Sig. (2-tailed)	r	Sig. (2-tailed)	r	Sig. (2-tailed)	r	Sig. (2-tailed)	r	Sig. (2-tailed)
Advertising	0.086	0.086	.110(*)	0.028	-0.039	0.440	0.05	0.315	0.093	0.062
Personal Selling	.251(**)	0.000	.372(**)	0.000	.169(**)	0.001	.340(**)	0.000	.257(**)	0.000
Sales Promotion	.242(**)	0.000	.358(**)	0.000	.181(**)	0.000	.355(**)	0.000	.217(**)	0.000
Publicity and Public Relations	-0.018	0.713	.176(**)	0.000	-.135(**)	0.007	0.009	0.862	0.083	0.097
Direct Marketing and Event Marketing	-0.137(**)	0.006	.138(**)	0.006	-.246(**)	0.000	-0.027	0.589	-0.017	0.736

Suggestion

1. Entrepreneur should consider how to reach target such as setting the price rate of the products. Language in advertising of products or services that is easy to build an understanding of the target to reach and response needs of the target. Provide important data and create tools to reach their goals, strategies including modifications. Creating opportunities for presentation and knowledge of the herbal properties to be able to cope with all the problems related in the beauty to increase market share and increase sales even more.

2. Entrepreneurs should focus on creating a marketing communication tool to increase awareness about the tools of marketing communications of the elderly women in the Western more in all sides. Reach the goal of creating a sales point. Give Suggestions about Integrated marketing communications (IMC) for Sales. Sales staff should be trained on a regular basis. Service skills are able to provide information to consumers as well and encourage the use of products and services as well as building confidence in products and services.

3. Advertising, Public relations and sales promotion should be emphasized to encourage consumer awareness and demand for the product and the service. Direct marketing and event marketing should be done regularly. For direct marketing, it should not disturb customers. It should be make positive attitude customers from marketing activities. Event marketing focused on customers who had been used products and created pride for the participants. It will create a good image for the company and make brand recognition of consumers. It would be reduce some cost of advertising.

Discussion

This research was study the integrated marketing communication (IMC) affect to behavioral decision of female's elderly on herbal beauty products in Western Thailand. Most samples were living at PRACHUAP KHIRI KHAN aging between 60-65 years old, having monthly income between baht 5,001-8,000 holding less than or equivalent high school education or vocational certificate and self- employed. General Consumer Information the respondents have familiar using herbal beauty products everyday over a period of 6- 12 months selecting Hair care and Body care. The popular brand is "Abhibhubejhr" cost baht 201-300 for each time to pay and buy twice times per month purchasing from agent. Butterfly-pea is the most herbal selected

The respondents have familiar the most perception of herbals properties of Lemon, Turmeric, Coconut oil, Gotukola, Phlai (Cassumunar), Tamarind, Aloe vera, Butterfly-pea, Citrus (Ma-krut), Tomato, Honey, Cucumber

The perception on Integrated Marketing Communication of female's elderly on herbal beauty products in Western Thailand in overall are at the median level. It consists of Publicity & Public Relations, Advertising, Sales Promotion, Direct Marketing & Event Marketing and Personal Selling is low level of perception.

Consumers have moderate opinion towards in decision making process in terms of problem recognition, information research, evaluate of alternatives, purchase decision and post-purchase behavior at high levels.

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Community Network and Capacity Building of AIDS Orphans in Bangkok

Asst Prof. Dusadee Charoensuk Ph.D [1]

Abstract

This research aims to 1) study problems, needs assessment, and situations of AIDs orphans in Klongtuei area in Bangkok and 2) develop community network and capacity of AIDS orphans. The mix methodology with quantitative, qualitative, and action research were applied with 543 orphans samples in Klongtuei. The research result revealed the vulnerable situations of orphans and urgently needs to be protected. The cause to be orphans are 264 orphans (48%) their parents left them with relatives or neighbors, 80 orphans (15%) with single parents, 75 orphans (14%) their parents never come back, 33 orphans (6%) fathers died, 14 orphans(2.5%) mothers died, 15 orphans(2.5 %) fathers and mothers died, 6 orphans(1%) %) mothers died from AIDS, 16 orphans(2.5%) father in jail, 15 orphans (2.5%) mothers in jail. Community network and capacity building of AIDS orphans is very important for their quality of life. Most of the population in Klonteuy was migrated from many parts of Thailand. Most of them are poor and illiterate. Many of them are unskilled labors and unemployed. Some of orphans live with single parent who cannot effort education, good care or safety environment to their children. Very few of them live in orphanages that are not enough for all orphans. Besides the worst things are drugs and unhealthy environment that lead them to have sex with friends, sex partners, or drug sellers for money and drugs. Some of orphans were call "central children". It means these children have no direct caregivers. But they were known and supported by few local people who gave them some food, clothes, or small amount of money that not enough for them. So to build up community network and capacity building of orphans by PAR method, life skill development, and AIC technique to help them handle their life should be a good way to do so. Community network that links leaders of each community, NGO, GO in the community to participate in handle orphans and AIDS orphans would help to mitigate AIDS impact on orphans. When they are network, they can pull together and distribute the needed resources, also can manage for the effective refer system, and exchange all the data and information to give the right help to orphans and stop the AIDS cycle.

Keywords: AIDS orphans, community network, capacity building

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Introduction

Klong Toey is the largest community in Bangkok with a long – standing community in Bangkok with some 100,000 residents. Even with well-established organization, there are some problems due to high migration and less social cohesion. People come and go. HIV/AIDS, drug abuse, poverty are common problems.

Objective

1. To study problems, need assessment and situation of orphans due to AIDS in Klongtuei.
2. To develop capacity and network of orphans due to AIDS in Klongtuei.

Methodology

Mix methodology with quantitative research, qualitative research, and action research.

Action method

PAR, AIC Technique and Life skill development for Network development, and capacity building.

Quantitative method

self-administer questionnaire for the cause to be orphans and their satisfaction in life with the 543 orphans in Klongtuei.

Qualitative method

In-depth interview, Focus group - my 4 cards and river of life.

Research results

1.Situation and cause of orphans and AIDS in Klongtuey:

1.1 increase unsafe sex in adolescence groups.

1.2 increase drugs users.

1.3 increase migration people.

1.4 high turned around of people in jail.

1.5 increase orphans and AIDS orphans from many reasons such as 543 orphans samples in Klongtuei. The research result revealed the vulnerable situations of orphans and urgently needs to be protected. The cause to be orphans are 264 orphans (48%) their parents left them with relatives or neighbors, 80 orphans (15%) with single parents, 75 orphans (14%) their parents never come back, 33 orphans (6%) fathers died, 14 orphans (2.5%) mothers died, 15 orphans (2.5 %) fathers and mothers died, 6 orphans (1%) mothers died from AIDS, 16 orphans (2.5%) father in jail, 15 orphans (2.5%) mothers in jail.

2. Network development and capacity building:

2.1 Individual level :

1) develop youth volunteers in the community and supported by local GO and NGO
2) develop self help group by life skill development and friend network

2.2 Family level: develop caregivers network

2.3 Community level:

1) develop community leaders network
2) established community watched and linkage with authority organization in the community
3) develop safe environment such as lights, CCTV etc

2.4 Community work:

1) resources sharing and budgets for working group.

2) projects and activities developing for youth development such as life skills development, sex education, music, sports, meditation, etc.

3) increase participation from members of community.

4) media for all.

Results from self analysis

The summary from the analysis of the data on My 4 cards which is the storey about "myself", "my family", "my neighbors", and "my school" are as follows:

From activities of 4 cards, the first card that talked about "Myself" the happiness or unhappiness, the needs, and the relationships with surroundings –to see how it affects self-esteem of those children. From 44 children, 19 (43.18%) said that they had a strong effect to their psychological the most. Losing parents made them sad, depressed, lack of warmness and had an effect on how they thought about their own value including economic and education problems.

1. <u>Need assessment</u> On psychological and psychosocial aspects it was found that the majority of these children wanted psychological support the most such as, love, warmth, and wanted people to love and understand them; especially they want to have a warm family. Other factor included in this was the economical problem. From these data these two factors together are 70% of all the needs.

It could be said that children are the most valuable assets to the country. They will grow up and turn to be our force for the country in the future. But the number of these orphans had increased as mentioned. The living environment in the globalization world at present also makes the society dynamic and complexity from social, economical, political and cultural factors.

<u>Activity River of Life</u>

In Activity River of Life is the activity that will help to develop communication skills, to increase energy, and also help to develop psychosocial skills. This activity helps children to release their feelings, happiness, unhappiness, and frustration of incidents that happened in the past and also to talk about what's happening at present and mentioned their hope in the future.

The way to arrange this activity was to set up a group of children according to the area they live and also arrange to have one facilitator who also will be a consultant for each group too. The members of the group will hear the stories of their friends who are in the same group which similar problems more or less. They will learn how to manage the problems by experienced learning. They will help each other by talking and motivate each other. At this stage, there will be the way to build or to create the feeling of peers-network, also the sympathy to each other. This way if we can build a leader and member in the group to be able to unite, it will be the way to develop Potential, to increase capacity also to develop psychosocial factor which will develop the life of those Aids orphans by participate in this activity.

The Summary and analysis of data from the Action research

The data from this activity will also reflect the effect of their surrounding and their life to be orphans in Klongtuey, psychosocial problem that deeply affect the children, the feelings, emotion that they had because their loss. Also the way they think on how to solve the problem, how they try to do it and set up their goal for their future.

1. The meeting and the activities which is participatory for orphans and AIDS orphans and guardians should be used in the meeting with other Aids orphans and guardians in other part of the country because it helps to find the problems, needs, self-esteem, and the impact of AIDS. These meeting can help to develop empowerment, psychosocial development and increase their network in taking care children.
2. The instructor or facilitator of each group must know and understand the way how to gives consults. They have skills in psychosocial, have skills in observation, analyze and synthesize, have a system in thinking, have skills in solving problems, be able to summarize the problems and give help in taking care of the children who participated in the meeting.
3. People involved must have a good coordination and cooperation with local government/ NGO and the local leaders to make sure this development will last for a long time and must be able to follow up and evaluate the results effectively.

4. People involved must be able to develop the network of the orphans and guardians such as friends help friends. In the future, it must be able to search and specify the condition of the leaders in order to develop the axis of the leaders and network so they can develop this group of children to have strength so they can help each other in the future.

5. Organizations and/or foundations, which have already given help to the children, are able to work together and cooperate with each other. This is the way that we can prevent the spread of the disease and the impact of AIDS in long and permanent term.

6.There should have the same type of research (participatory) in other provinces/districts and other parts of the country so they can compare the problems, the needs, the self-esteem, and the impact of AIDS to their health to see that they are the same or difference. The result of which we can use in proposal to guide as a policy in developing the developing the self esteem of the AIDS orphans in the future with suitable situations.

7. The development of the participatory of community in taking care of AIDs orphans should be based on the leaders of the community who are interested in the problems and the impact of AIDS as a research group. This will lead to the continuity and enduring of the development.

8. There should have a focal point to arrange government and private organizations in many levels, central and community ones to take care of AIDS orphans and take part in analysis and follow up the results of researches. They are the officers from those organizations any foundations or those from Controlling Diseases Department, the Social Development Department and Health offices in the provinces to coordinate and support the project.

9. There still is a problem of stigma and prejudices, separation from community/society/and some Institutes of education towards AIDS orphan children, therefore, the arranging of seminars and the push to public relations to create an understanding to people about AIDS will give benefits to AIDS orphans in the future.

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Effectiveness of Eating Behavior Promotion Program on Eating Behavior, Body Mass Index and Blood Pressure Level in Older Adults with Essential Hypertension

Sabaitip Cheueiam [1]

Abstract

Background: Hypertension is a significant public health problem because it is one of the most common diseases of the elderly with a chronic condition and life-threatening complications. Hypertension is the most common chronic disease in the elderly. Statistics show that 50 percent of the elderly worldwide suffer from hypertension. In Thailand, about 31.7 percent of the elderly suffer from hypertension. In particular, approximately 90 percent of those sufferer from essential hypertension. Furthermore, the fatal complications such as stroke, dependence and death may occur. Therefore, complication prevention strategies, for example, controlling the eating behaviors of low salt and fat diet and stress management are required.

Objectives: The objective of this research was to study the effects of eating behavior promotion program on eating behavior, body mass index and blood pressure level in older adults with essential hypertension

Methods: The research design of this study was a Quasi-experimental research using a repeated measures design. Sixty participants who met the criteria were recruited to the study. The inclusion criteria were older people who: 1) were diagnosed as the 1st degree of essential hypertension, 2) attended the hypertension clinic during August-October 2011, 3) got permission from their doctor to participate, 4) were independent in terms of consciousness and being able to understand Thai, 5) had no experience with the health promotion program and, 6) agreed freely to participate in this study. However, potential participants who met the exclusion criteria were not be able to participate in this study. The exclusion criteria were people who 1) have severe physical and psychological complication such as severe heart diseases, uncontrolled diabetes Mellitus or kidney diseases or depression. All 60 participants were randomly assigned into two groups. Therefore, each group of 30 participants were in a control or an intervention group. The intervention group received the 5 week- Eating Behavior Promotion Program, developed by the researcher. Instrumental tools were the demographic questionnaires, eating behavior for hypertension questionnaires, measures of blood pressure level, body mass index, Modified Barthel Activities of Daily Living, Thai Geriatric Depression Scale and Mini-Mental Status Examination (Thai 2002).

Results: Most participants were female and there was a significant relationship between groups and eating behaviors scores at .05. Furthermore, there were significant differences between averaged scores between the intervention and control group in terms of the specific eating behavior average scores, body mass index, systolic blood pressure, and diastolic blood pressure ($p < .05$).

Conclusion and recommendations: The study shows that the specific eating behavior promotion program can promote eating behaviors of older adults with essential hypertension and reduce body mass index as well as both systolic and diastolic blood pressure level. Therefore, this program provides the benefits of hypertension complication prevention. Therefore, it should be used for people with essential hypertension group.

Keywords: eating behavior promotion program; eating behavior; health belief model; hypertension; older adults

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Background

Hypertension is a significant public health problem because it is one of the most common diseases of the elderly with a chronic condition and life-threatening complications.

Hypertension is the most common chronic disease in the elderly. Statistics show that 50 percent of the elderly worldwide suffer from hypertension. In Thailand, about 31.7 percent of elderly people suffer from hypertension. In particular, approximately 90 percent of those sufferer from essential hypertension. Furthermore, the fatal complications such as stroke, dependence and death may occur. Therefore, along with medication, complication prevention strategies, for example, controlling the eating behaviors of low salt and fat diet, exercise, weight loss (ref) and stress management by the people with essential hypertension which may reduce the systolic and diastolic blood pressure level are required. Although there have been a few studies about the effect of health promotion program on the eating behavior, there were incongruent results. Furthermore, some people with essential hypertension faced difficulty handling these non-pharmacological strategies. As a result, health promotion programs to enhance competencies of people with essential hypertension to control and reduce blood pressure level, are required. Based on a literature review, eating behavior is assumed to be related to blood pressure levels; however, there is a controversial issue regard the incongruent results from previous studies about the relationship between eating behaviors and blood pressure levels control for people with essential hypertension. Therefore, the effectiveness of eating behavior promotion program should be re-conducted to confirm the results in the Thai context and guide health care providers for the practice. In this study, the researcher has used the health belief model, especially, the perception towards hypertensive severity, perceived benefits and barriers on doing the correct eating behaviors, to guide the eating behavior promotion program development.

Furthermore, in Ratchaburi, the prevalence of hypertension is the second highest in Thailand and attendance rate from hypertension in the outpatient department has been increasing steadily since 2549 at 38.48 percent and has reached 2552. Additionally, Ratchaburi is the catchment area of the researcher. Therefore, the researcher selected Ratchaburi province as the setting of this study.

Instruments

By providing seniors with specific health promotion program on eating behavior for a period of five weeks, which is a reasonable period of time (Nontamaree, S, 2008). To encourage the older adults to have eating behavior that are consistent with specific diseases, as a result, the blood pressure can reduce.

Purposes

The objective of this research was to examine the effects of eating behavior promotion program on eating behavior body mass index and blood pressure level in older adults with essential hypertension at pre, post and follow up.

Ethical measures

Permission from the aging in Banpong district, Ratchaburi to allow the researcher access to their name lists in the hospital database to contact the people with hypertension who are eligible to take part in this study was granted. All potential participants who suffer from hypertension and have an appointment with their doctors in outpatient clinics were contacted and asked for a consent agreement when they agreed to take part in this study. Later, the participants agreed to take part in this study and a signature on the consent form was obtained from all participants. During the research period, participants could withdraw at any times. The privacy of participants was kept by limiting people who could access to data; results from this study were reported as a whole without identifying participants' names.

Design/Methodology

Design: Quasi-experimental Research

Population and sample:

Population of this study was the older people with hypertension living in Ratchaburi province in Thailand.

The samples of this study were 60 older adults with essential hypertension in Banpong District, Ratchaburi Province. Thirty older adults were simple randomly assigned into the experimental group or the control group.

Sample size calculation:

The sample size was calculated using the estimation of statistical power analysis, setting the significance level to test the 0.05 power 0.80 and Effect Size. 0.20 open Table 6 - 3 Estimated Sample Size Requirements as Function of Effect Size (Polit & Beck, 2004). At least 25 people were in each group of this study. The research sample was added to prevent the loss of 20 percent of the sample group, which had a sample size of 30 people.

Intervention:

The intervention group received the 5 week- Eating Behavior Promotion Program, developed by the researcher. Instrumental tools were the demographic questionnaires, eating behavior for hypertension questionnaires, measures of blood pressure level, Body Mass Index, Modified Barthel Activities of Daily Living, Thai Geriatric Depression Scale and Mini-Mental Status Examination (Thai 2002).

Instrumental tools:

There were five main instrumental tools:

1. The eating behavior of older adults with essential hypertension questionnaires, the questionnaire was modified from the eating habits of patients with hypertension (Nagjagm, A., 2007). These modifications of questionnaire comprised shortening words to help older people easily understand and adjusting content of questionnaire into the Thai context. There are 25 questions, including 20 positive questions and 5 negative questions. The content validity of the scale was .82, Cronbach's alpha coefficients were .86.

2. Beam balance scale species Plat form digital scale which has been Calibrate accuracy every six months, according to the quality standard ISO 9001: 2000 in the same scales were used throughout the research. And reading to 2 decimal places.

3. Meter height. It is a kind of aluminum metal tape attached to a scale that is perpendicular to a flat surface. And read the first decimal place.

4. Mercury Sphygmomanometer and Stethoscope, used for measuring the blood pressure have been calibrated for accuracy every six months according to quality standard ISO 9001: 2000 for measuring the blood pressure of the sample used to measure blood pressure the same throughout the study.

5. Dietary Record were used for recording food or things that the older adults eat each day.

Data collection:

There were three Steps of data collection:

1. The researcher contacted the potential participants who were eligible to take part in this study. After consent was obtained, the participants were tested using the instrumental tools mentioned above.

2. All participants were randomly assigned into two groups: experimental and control group. The participants in the experimental group received the eating behavior promotion program, whereas the control group received only the usual care for five weeks.

3. All participants were tested at the conclusion of the program and at the follow-up phase (3 months later).

Data analyses:

The collected data were analyzed by descriptive statistics and repeated measure analysis of variance: between – subject variable and within – subject variable.

Results:

Characteristics:

In the experimental group, most participants were female (86.7%), aged 66-70 years (60%). The average age equates to 67.5 years old. Most of them were married/widowed/divorced/separated (70%) and claimed to be Buddhists (100%). Most of the participants had graduated from primary school (76.7%) and did not work (70%), nearly half of them had the average income per month of less than 1,000 baht (43.3%) and mentioned that their income was not enough (60%). The number of family members was the 2-5 (76.7%), the majority of child care (80%) is a congenital disease, the majority (76.7%), about half as high blood pressure. For 1-5 years, they had received more than one type of medication (86.7%) and had a BMI in the range 21.8 to 24.9 kg / m 2 (70 %).

For older adults in the comparative group, most were female (83.3 %) aged 66-70 years (66.7%), the average age equated to 68.9 years. About half were married/widowed/divorced/separated (46.7%). All were Buddhists (100%). Most studied through an elementary education (80%) and were not employed (70%). Most had an average income per month of less than 1,000 (63.3%) and felt their income was inadequate (76.7%). The number of family members was 2-5 people (70%). About half had a son (53.4%). Most diseases (70 %) for the disease, high blood pressure in the range of 1-5 years and 6-10 years (50 %) received more than one type of medication (83.3 %), and body mass index in the range 21.8 to 24.9 kg / m 2 (. 66.7 %).

The interaction of method and time on eating behavior was .05 ($F_{1, 58}$ = 164.78). There were significant differences of variance in eating behavior between the experimental group and comparative group .05 ($F_{1, 60}$ = 174.95) as shown in table 1.

The interaction of method and time on systolic blood pressure was .05 ($F_{1, 58}$ = 23.20). There were significant differences of variance in systolic blood pressure between the experimental group and comparative group .05 ($F_{1, 68}$ = 64.96) as shown in table 1.

The interaction of method and time on diastolic blood pressure was .05 ($F_{1, 58}$ = 10.13). There were significant differences of variance between diastolic blood pressure between the experimental group and comparative group .05 ($F_{1, 75}$ = 11.81) as shown in table 1.

The interaction of method and time on body mass index was .05 ($F_{2, 116}$ = 122.02) There were significant differences of variance in body mass index between the experimental group and comparative group .05 ($F_{2, 116}$ = 174.95) as shown in table 1.

Table 1.
The analysis of variance between – subject variable and within – subject in terms of eating behaviors, body mass index, and blood pressure level during the experiment.

Source of Variation	*df*	*SS*	*MS*	*F*
Eating behavior				
Between Subjects	1	485992.27		
Group (G)	1	17072.27	17072.27	164.78*
$Ss_{w/ingroup}$	58	6009.12	103.61	
Within Subjects				
Intervals (I)	1	5752.01	5584.84	122.02*
I x G	1	8247.14	8007.45	174.95*
I x $Ss_{w/ingroup}$	60	2734.18	45.77	
Systolic				
Between Subjects	1	3741125.0		
Group (G)	1	1729.8	1729.8	23.20*
$Ss_{w/ingroup}$	58	4325.2	74.57	
Within Subjects				
Intervals (I)	1	360.53	309.23	36.47*
I x G	1	642.13	550.76	64.96*
I x $Ss_{w/ingroup}$	68	573.33	8.47	
Diastolic				
Between Subjects	1	1325438.4		
Group (G)	1	1856.02	1856.02	10.13*
$Ss_{w/ingroup}$	58	10623.55	183.16	
Within Subjects				
Intervals (I)	1	56.31	43.33	3.71*
I x G	1	179.24	137.92	11.81*
I x $Ss_{w/ingroup}$	75	880.44	11.68	
Body mass index				
Between Subjects				
Group (G)	1	1707.27	1707.27	164.78*
$Ss_{w/ingroup}$	58	600.12	103.61	
Within Subjects				
Intervals (I)	2	575.01	558.84	122.02*
I x G	2	824.14	800.45	174.95*
I x $Ss_{w/ingroup}$	116	273.18	45.77	

*$p < .05$

Comparison between Factors

Most participants were female and there was a significant relationship between groups and eating behaviors scores at .05. Furthermore, there were significant differences between averaged scores between the intervention and control group in terms of the specific eating behavior average scores, body mass index, systolic blood pressure, and diastolic blood pressure ($p < .05$) (as shown in table 2)

Table 2.
Comparison of variance eating behavior body mass index and blood pressure level in experimental group at pre-test, posttest and follow-up phase (Newman-Keuls Method)

Time	*X*	*SD*	pre-test	posttest	follow-up
eating behavior					
pre-test	44.13	.91	-	26.27*	26.43*
posttest	70.40	1.44		-	.17
follow-up	70.57	1.44			-
systolic blood pressure					
pre-test	145.73	5.35	-	6.93*	7.07*
posttest	138.80	5.79		-	.13
follow-up	138.67	5.81			-
diastolic blood pressure					
pre-test	84.80	10.97	-	3.27*	3.33*
posttest	81.53	9.76		-	.07
follow-up	81.47	9.68			-
body mass index					
pre-test	42.26	5.88	-	4.70*	4.80*
posttest	54.80	6.58		-	.10
follow-up	55.57	6.67			-

$p < .05$

Discussion

At the posttest and follow-up monitoring, the average score of the eating behavior of the experimental group was greater than those in the control group. Similarly, the average scores of experimental group at the posttest were greater than the average scores of the control group. The results showed that the eating behavior promotion program is significantly different between the intervention and control group because the program was held to promote eating behavior. The research was performed by applying a structured belief health (Rosenstock, I. M., Strecher, V. J., & Becker, M. H. 1988**)**. The results showed that this program made the participants become aware of their eating behavior, especially in terms of reducing salt consumption, in particular, reducing fish sauce, which is one of the salty taste sources in food and which increases blood pressure level. This health promotion program could help participants understand, become aware of and avoid salty food consumption. Even though some participants advised that avoiding fish sauce made them feel uncomfortable because they felt that the taste of food is less delicious, most participants could recognize and avoid the salty food from various sources. There are some significant factors to encourage and motivate older people to continue and achieve their specific eating behaviors. First, family support, such as if older people have got support from their families, they tends to be able to succeed. Furthermore, the specific eating behavior promotion handbook was helpful for older people to review at home when they cannot remember the content. These factors enhance older people's good eating behaviors, especially for hypertension care, and they can continue their good practice at the follow-up phase. As a result, their blood pressure levels were improved. These results were congruent with a previous study (Tipkanchanarekha, 2006) which claimed that the intervention based on health belief model, in particular, the perceived risks, severity of the disease and perceived benefits and barriers to prevent hypertension can help the participants in intervention group to improve their prevention of hypertension, compared to the control group. Similarly, previous studies of Yookasem (Yaokasem, S.,2550) which confirmed that perceived risks, benefit severity and reducing perceived barriers can improve eating behavior scores at the posttest significantly and Nontamolee (Nontamaree, S.,2551) found that self-care behavior average scores and family self-care average scores at posttest of participants, receiving systemic health education, were better than those at pretest. Furthermore, Peunalao's study (Peunalao, S., 2006) also confirms that older people who are obese and attended the intervention group which provided a developed health belief model to obese people. Finally, people with obesity have changed their health behavior and then it can improve their practice scores especially, the practice to prevent obesity, at posttest and follow up phase better than those in the control group. Comparing to the control group.

At the posttest and follow-up phase, older adults in the experimental group had average blood pressure levels lower than at the pretest and those in the control group significantly at $p<.05$. Considering the details of systolic and diastolic blood pressure, the systolic blood pressure can be reduced about 6.93 mmHg and the diastolic pressure can be reduced about 3.27 mmHg, also the Body Mass Index: BMI can be reduced about 0.97 Kg/m^2. These results confirmed the benefits of eating behavior promotion program for people with hypertension. For example, participants could change their eating behaviors in terms of avoiding or reducing the salty, preserved food consumption when the participants cooked food themselves as indicated in their self-dietary diary. The further benefits were participants could arrange the low salt, low fat diet and increase vegetables and fruit consumption. These good behaviors could help reduce the participants' blood pressure. This result was congruent to Moore's study (Moore, T.J., 2001) that examined the effectiveness of specific diet for the diseases, especially for people with the first degree hypertension. The research showed that the systolic blood pressure can be reduced about 11.2 mmHg and if they can reduce the sodium intake to less than 2400 mg/day or the equivalent of 1 teaspoon of sodium chloride, the systolic blood pressure can be reduced to 2-8 mmHg. (Tipkanchanalakar, K., 2006).

Limitation

This study mainly focuses only on the specific subgroup that tends to be active in Banpong district, Ratchaburi. Implementation of this result for other groups should be done only cautiously.

Implications/recommendations

There are two main recommendations from this study

1. Health care providers can implement the developed eating behavior promotion program to older people with hypertension in the primary care units or the elderly club.

2. For the research, the longitudinal study or a longer period of time to examine the effectiveness of eating behavior promotion program should be further studied. The longitudinal research can help researchers to understand changes or sustainable changes of eating behaviors after finishing the program.

Conclusion

The study shows that the eating behavior promotion program can promote eating behavior of older adults with essential hypertension and reduce body mass index, and both systolic and diastolic blood pressure. This program should be continued.

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What They "Don't Know" May Help You -Assessing the Power of Two Knowledge Measures on Japanese Political Participation-

Gento Kato [1]
Christian Collet [2]

Largely because of its positive impact on participation, political knowledge is seen as a critical variable in the study of democracy. The problem facing survey researchers is determining a method for capturing it. Conventional measures, such as those first employed by Delli Carpini and Keeter (1996), focus on "testing" respondents on different dimensions of government, politics and policy. Those approaches have, in recent years, come under criticism (e.g., Lupia and McCubbins 1998) for missing critical knowledge dimensions and failing to capture respondents' ability to utilize newly acquired information to make political decisions. In this paper, we utilize a national survey of Japanese citizens (conducted by GLOPE at Waseda University) to compare the predictive power of a standard knowledge "test" to a simpler variable: an aggregated "don't know" (DK) scale, based on the total amount of item non-response in the questionnaire. Results indicate that the simpler DK measure produces results at least as robust as the more common and time-consuming "testing" measures, thus serving as a more efficient indicator of the respondent's awareness of the political system. Building upon our previous work on Japanese political knowledge (Collet and Kato 2013), the implications of our findings for other Asian contexts are considered.

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Theory

Several studies find that political knowledge is an important predictor of political participation (e.g., Yamazaki 2008, Jacobs, Cook and Delli Carpini 2009). The more knowledgeable a person is, the more that person is motivated to get involved in politics. Knowledge, as such, is often seen as essential for democratic citizenship.

At the same time, the scales typically utilized in public opinion surveys to measure political knowledge -- aggregated correct responses to factual questions about government, policy, and political leaders (first employed by Delli Carpini and Keeter 1996) -- have come under criticism. The attack has been on two fronts. First is the claim that the selection of the knowledge test questions is arbitrary and elitist. This suggests that the selection of random facts about government or politics (e.g., knowing the name of a foreign head of state) cannot capture the knowledge necessary for ordinary citizens to gain the ability to participate. It may also be that such "textbook" information recall can be gained after people start to participate in politics, but is not a requirement for participation. The second line of criticism points out the inability of knowledge test scales to measure the cognitive abilities of citizens to utilize newly acquired information to make actual political decisions (e.g. Lupia and McCubbins 1998).[3]

In light of these criticisms, this paper aims to offer a more efficient approach for survey researchers for measuring political knowledge: an aggregated score of "don't know (DK)" responses to political attitudinal items (referred to as the "aggregated DK scale"). This simple measure avoids the arbitrariness and elitism of the test question approach, in that it assumes that those who answers "don't know" to attitudinal questions lack the cognitive resources to form and express opinions.[4]In making this assumption, it should be noted that DK is different from "no answer (NA)"; NA means refusal (Shoemaker, Eichholz and Skewes 2002). NA may or may not mean a lack of cognitive resources and, moreover, is likely to be an indicator of the question's sensitivity or the respondent's desire to self-censor, due to fear of isolation (e.g., Tourangeau *et al* 2000; Hayes, Glynn and Shanahan 2005). Where sporadic levels of item-DK response may be a reflection of researcher generated measurement error (i.e., confusing, complex, sensitive or poorly articulated questions), we contend that greater reliance on the DK response across an entire questionnaire is more likely a manifestation of the respondent's cognitive limitations. It is from this basis that we contend that an aggregated DK scale will produce a rough, yet unbiased indicator of knowledge that is more economical for researchers and at least as sufficient as other measures for inclusion in predictive models of political behavior.

Hypotheses

Accordingly, we examine the following three hypotheses:

H1. An increase in the knowledge test scale increases political participation;

H2. An increase in the aggregated DK scale decreases political participation;

H3. An increase in the aggregated NA scale will have no impact on political participation.

3 A further criticism, along the lines of recent work on cross-cultural item comparability, would be that the contents of knowledge tests may be idiosyncratic to domestic political systems and subject to change over time, thus making them unstable and unreliable for regular deployment across survey contexts. Factual "test" questions are not necessarily subject to the same respondent interpretability problems as, say, efficacy measures (King and Wand 2007), but do remain subject to the researcher's own assessments of political, procedural and institutional salience and normative judgments about civic awareness and competence.

4 This scale has already been utilized by Yamada (2006) as a measure for political information. Its validity has never been tested.

Data and Method

We utilize GLOPE2005, a political survey conducted by Waseda University in November 2005[5]. The dependent variable is the aggregated scale of 10 different types of political participation. The ten questions were recoded into dummies (1 = "participated"; 0 ="not participated") and then weighted by the proportion of respondent not participated[6]and aggregated (see Appendix 1). Table 1 shows the result of principal component analysis for 10 different types of political participation. Model A is a one-component model. It can be seen that loadings for all types of participation except voting in an election exceeds 0.4[7]. Cronbach's Alpha for model A also shows 0.764, thus there is some validity in constructing an aggregated participation scale by all 10 questions. Model B is a two component models.[8]Loadings lower than 0.4 are suppressed from the table. Political participation is revealed to have two major dimensions: 1) "civic participation," such as involvement in residents' associations or other regional activities; 2) "party political participation" includes electoral campaigning or activities related to parties. The analysis that follows is therefore conducted along these two categories of participation.

Table1 Principal component analysis for different types of political

	ModelA	ModelB		Non-participation proportion
Participate in…	Loading	Loading 1st comp.	2nd comp.	
①Actively in resident's association	0.420		0.735	38.6%
②Local volunteer, local residents' campaign	0.543		0.694	55.4%
③Demonstration, Assembly	0.472		0.457	83.4%
④Voting in election	0.221		0.510	5.3%
⑤Helping electoral campaign	0.717	0.655		71.6%
⑥requesting for vote	0.738	0.692		75.8%
⑦Member of koenkai	0.683	0.652		74.2%
⑧Member of political party	0.633	0.759		87.9%
⑨Support party activity (raise money, read NP)	0.647	0.700		83.5%
⑩Call/Write for members of council/diet	0.525	0.566		89.2%
Cronbach's Alpha	0.764	0.776	0.517	

※Varimax method with Kaiser's standardization is utilized for ModelB

The independent variables of interest are the knowledge test scale, the aggregated DK scale, and the aggregated NA scale.

The knowledge test scale consists of 9 knowledge test questions. The questions are categorized into three fields ("institution," "party politics," and "political leader"), in reference to Imai (2008) (see also Collet and Kato 2014), and then their scores are aggregated by the three fields. The lowest score is 0 and the highest score is 3 for the created variable (details are in Appendix 2). The aggregated DK and

5 The raw data for Survey on Japanese Social and Political Attitudes in the 21st Century（GLOPE2005）（Investigators: the 21COE-GLOPE project on Constructing Open Political-Economic Systems, Graduate School of Economics, Waseda University）is provided by the Social Science Japan Data Archive.

6 When non-participation rate is high, meaning the one difficult to participate, it considered as high level participation. (Dummy variable considers both DK and NA as not participated, but non-participation rate excludes DK and NA from the calculation.）

7 The low loading score for voting may indicate a different mechanism than other types of participation or may simply be the result of a low level of non-participation.

8 As the model in which all fixed values exceeds 1.0, model B is the most appropriate model.

NA scales are the scores of DK and NA for all political attitudinal questions, weighted by the "having-opinion" rate[9]. The aggregated DK scale has a distribution ranging from 0 to 41.9, with a mean of 4.459. The distribution of the aggregated NA scale is from 0 to 41.9, with a mean of 0.839. A scatter plot, which appears in Appendix 3, indicates that different respondents have different DK and NA response patterns (r = 0.169, p < .05).

Seven controls are included in the model: gender, age, education, city size, political interest, external efficacy, and party ID strength. For gender, females are expected to participate less, and for city size, living in larger city indicates lower level of participation. For other variables, a positive relationship between the control variables' score and the political participation score is expected. The standard OLS model is thus:

(Political Participation) i =α + β1 (knowledge test)i +β2(aggregated DK)i +β3(aggregated NA)i + β3(female)i + β4(age)i + β5(education)i + β6(city size)i + β7 (political interest)i + β8(external efficacy)i + β9(party ID strength)i + εi

Analysis

Table 2 shows the result for the political participation as aggregated score of all 10 participation variables. Looking first at the bivariate models 1 and 2, it can be seen that both the knowledge test score and aggregated DK score have an impact on political participation. The direction of the impact is consistent with the hypotheses. In model 3, the aggregated NA score has a slight effect on political participation, but the size of the impact is smaller than the knowledge test score or for aggregated DK. Model 4 represents the result for the full model. In this model, the impact of knowledge test and aggregated DK persist. If one compares the size of the effect for two independent variables, the coefficient for aggregated DK is at least as large as the knowledge test. Also in Model 4, the impact of aggregated NA on political participation disappears. This further supports our expectations.

Table 2 Determinants of Political Participation (all 10 aggregated)

	Model1		Model2		Model3		Model4	
	Std coef. / Unstd. coef.	Std. Err.	Std coef. / Unstd. coef.	Std. Err.	Std coef. / Unstd. coef.	Std. Err.	Std coef. / Unstd. coef.	Std. Err.
(Constant)	0.925 ***	0.068	1.628 ***	0.047	1.430 ***	0.042	-0.614	0.297
Knowledge Test	**0.224** ***						**0.094** **	
	0.450	0.052					0.189	0.061
Aggregated DK			**-0.228** ***				**-0.112** ***	
			-0.050	0.006			-0.025	0.007
Aggregated NA					**-0.071** **		-0.002	
					-0.037	0.014	-0.001	0.015
Gender (Female)							-0.017	
							-0.051	0.079
Age							**0.203** ***	
							0.019	0.003
Education (year)							0.039	
							0.021	0.016
City Size							**-0.101** ***	
							-0.112	0.027
Political Interest							**0.126** ***	
							0.219	0.049
External Efficacy							**0.043** ˉ	
							0.046	
Party ID Strength							**0.215** ***	
							0.328	0.040
F statistics	**73.494** ***		**76.644** ***		**7.160** **		**36.978** ***	
Adj R²	0.049		0.051		0.004		0.208	
N	1397		1397		1397		1370	

ˉp<0.1 *p<0.05 **p<0.01 ***p<0.001

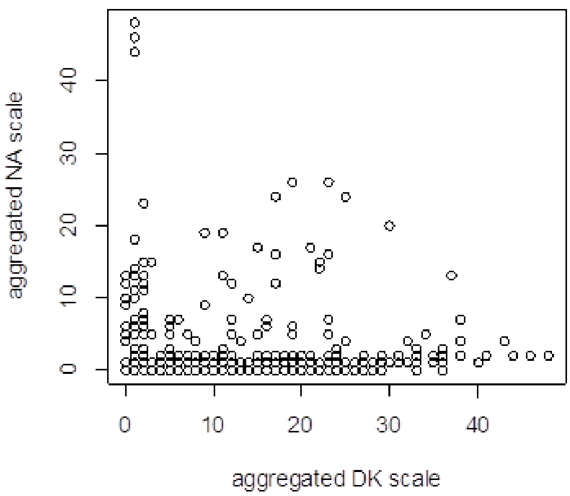
9 "Having opinion rate" is the % of respondents who did not choose DK or NA for each question. The justification here is that if this rate is higher, the question can be assumed to be "easier" to respond to, meaning that the residual DK/NA that occurs in "easy" questions is more important.

Table 3 displays the results for “civic participation” and “party political participation”[10] as dependent variables. In either category of participation (Models 5 and 6), the knowledge test score has a positive impact and aggregated DK score has a negative impact on participation, while aggregated NA score has no effect. Comparing the standardized coefficients of independent variables, the impact on “civic participation” is slightly larger than the impact on “party political participation.” Again aggregated DK score has a larger effect than the knowledge test score in either model.

Table 3 Determinants of “civic” and “party political “

	Model5		Model6	
	Civic Participation		PartiPoliticalPartic.	
	Std coef. / Unstd coef.	Std err	Std coef. / Unstd coef.	Std err
Constant	-0.063	0.112	-0.551	0.239
Knowledge Test	**0.102**	**	**0.072**	*
	0.074	0.023	0.115	0.049
Aggregated DK	**-0.116**	***	**-0.089**	**
	-0.009	0.002	-0.016	0.005
Aggregated NA	-0.007		0.001	
	-0.002	0.006	0.000	0.012
Gender (Female)	**0.058**	*	**-0.048**	⁻
	0.063	0.030	-0.114	0.063
Age	**0.170**	***	**0.180**	***
	0.006	0.001	0.013	0.002
Education (year)	**0.102**	**	0.003	
	0.020	0.006	0.001	0.013
City Size	**-0.154**	***	**-0.058**	*
	-0.061	0.010	-0.051	0.022
Political Interest	**0.112**	***	**0.108**	***
	0.070	0.018	0.149	0.039
External Efficacy	**0.080**	**	0.018	
	0.030	0.010	0.015	0.021
Party ID Strength	**0.081**	**	**0.235**	***
	0.044	0.016	0.284	0.033
F statistics	**21.877**	***	**36.977**	***
Adj R^2	0.132		0.184	
N	1370		1370	

⁻p<0.1 *p<0.05 **p<0.01 ***p<0.001



10 In table 1, “civic ...” is ①～④,”party political ...” is ⑤～⑩. The scores are aggregated weighted score.

Conclusion

In summary, the aggregated DK score consistently produced results that are comparable to the knowledge test in a simplified predictive model of political participation.[11] Our observations add weight to the assumption that "don't know" responses to attitudinal questions are a function of a lack of cognitive resources. That the impact of the aggregated DK variable is at least comparable in influence to that of the knowledge test score suggests that researchers looking for a sufficient proxy measure for political knowledge and cognitive abilities may be able to do so easily without adding additional costs to survey administration.

Several caveats remain. One is the direction of causal relationships. For example, there is a possibility that the amount of knowledge increases by the act of participation itself. An analysis using panel data may be required. Another would be the more detailed examination of different types of political participation and political attitudes. Table 3 indicates that political participation involves two qualitatively different aspects, and political attitude should have those dimensions too. Thus, a detailed observation of DKs on specific types of participation and attitudes are warranted.

Lastly, our findings may be idiosyncratic to the administration of the GLOPE2005 or to Japanese respondents generally. Since aggregated DK scales are simple to compute, their predictive abilities in other survey contexts deserve exploration.

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11 The knowledge test questions in GLOPE2005 are experimental batteries.

Appendix 1. Constructing Political Participation Variables

For political participation, 10 questions (following (1) – (11), except for (2)) are utilized. As a first step, for each question, those who have participated more than once are coded "1," while those who have never participated , DK, or NA are coded "0" to construct dummy variables. After that, each dummy score is weighted with the "non-participation" rate in table 1. General participation variables are constructed as the aggregation of weighted dummy variables. (1) and (3) to (5) are included in "civic participation," and (6) through (11) are included in "party political participation."

Q23 (1) About the following things, we will ask you about your experience of involvement and willingness of involvement in the future. Firstly, have ever experienced [(1)~(11)]? Please answer by "several times," "one or two times," or "not once / never."

(1) Actively involved in residential association.
(2) Consult a public office *It is excluded, because public office may be used in non-political purpose.

(3) Join in local volunteer activity or residents' campaign.
(4) Participate in demonstration or assembly.
(5) Voting in election.
(6) Help electoral campaign.
(7) Ask acquaints to vote for particular candidate or party.
(8) Become a member of koen-kai.
(9) Become a member of political party.
(10) Support party activity (donation, reading party newspaper)
(11) Write or call national or regional politicians

	Min.	Max	Mean	Std. Err.
Political Participation (	0	6.649	1.990	1.503
Civic Participation	0	1.827	0.993	0.542
Party Political Participa	0	4.822	1.458	1.188

Appendix 2. Constructing Knowledge Test Score

<u>Institutional Knowledge (4 tests)</u>

1. What number is the article in Japanese Constitution including war renunciation?
   a. Article 1 / b. Article 9 (correct) / c. Article 17 / d. Article 31
2. I will ask about Japanese Judicial System. One can appeal to higher court when dissatisfied with the ruling in Japan, then how many times one can get trial?
   a. Twice / b. Three times (correct) / c. Four times / d. Five times
3. I will ask about Japanes administration. Cabinet take responsibility on its adminsitration on what?
   a. Diet (correct) / b. Bureucracy / c. Supreme Court / d. Emperor [Tennō]
4. By May 2005, government begins the system that citizens join in criminal trial and decide whether or not defendant is guilty, and if guilty, decide what sentence should defendant get. How do you call that system?"
   a. Shihō-in Seido [Justice decider system]
   b. Chōtei-in Seido [Mediator system]
   c. Saiban-in Seido [Citizen judge system] (correct)
   d. Baishin-in Seido [Jury system]
   e. I know that new system is coming in, but don't know the name
   f. I don't know that new system is coming in

<u>Party / Policy Knowledge (7 tests)</u>

5. Where do you think is the ideological location of LDP and DPJ on following issues? Please indicate in the following scale when 0 means close to stand point A and 6 means standpoint B.
   0 / 1 / 2 / 3 / 4 / 5 / 6
   5.1 Pension System Reform
   Stand point A: Reform withint the current pension system
   Stand point B: Drastic reform towards unification
   [Correct if locate LDP closer to standpoint A than DPJ]"
   5.2 Postal Privatization
   Stand point A: negative
   Stand point B: positive
   [Correct if locate LDP closer to stand point B than DPJ]
6. Following phrases are the catch copies that are used by political parties in the latest election (2005 HoR election). Do you know which party set which catch copy? Please choose the supposed party.
   a. LDP / b.DPJ / c.CGP / d.JCP / e. SDP / f. others
   6.1 Nihon wo Mae-e, Kaikaku wo Mae-e [Move Japan forward, Move Reform Forward]-(CGP is correct)
   6.2 Tashikana Yatō ga Hitsuyō desu [You Need Clearly-standing Opposition Party]-(JCP is correct)
   6.3 Kaikaku wo Tomeruna [Do Not Stop the Reform]-(LDP is correct)
   6.4 Nihon wo Akiramenai [We Don't Give Up Japan] - (DPJ is correct)
   6.5 Kokumin wo Mizushite Kaikaku Nashi [No reform without thinking about the people]-(SDP is correct)

<u>Political Leader Knowledge (2 tests)</u>

7. Do you know what positions following people have in politics? If you know, let me know the name.
   7.1 Kono Yohei - (Correct answer: Chairperson of the House of Representatives)
   7.2 Tony Blair – (Correct answer: The Prime Minister of UK)

Standardize each field of knowledge to have a maximum sore of 1 and minimum score of 0, and aggregate 3 standardized variables.

	Min.	Max	Mean	Std Err.
Knowledge Test Score	0	3.000	1.055	0.748

Appendix 3. Construction Aggregated DK/NA scores

The questions utilized for aggregated DK score and aggregated NA scores are following 40 variables (20 questions). The full wording is omitted due to the limitation of space. The scores inside the parentheses are "having opinion" rate (% of respondents other than DK/NA).

Q4 Feeling thermometer towards each of following political party
Liberal Democratic Party [LDP] (91.7％), Democratic Party of Japan [DPJ] (88.5%), Komei-to [CGP] (86.6%), Communist Party [JCP] (85.4%), Social Democratic Party [SDP] (85.5%)

Q5 Feeling thermometer towards "non party affiliation" (77.6%)

Q6 Party Support (96.4%)

Q7 Koizumi Cabinet Support (95.6%)

Q8 Political Satisfaction (97.1%)

Q15 Governmental responsibility on economy (96.0%)

Q16 Governmental responsibility on daily life (95.6%)

Q17 Ideology (90.6%)

Q19 The governmental performance on following issues
National Defense, foreign policy (86.2%), Domestic security, social order (87.0%), Economy (88.3%),
Welfare (90.8%) , Environment (88.5%) , Education(85.8%),
Women's position and social advancement (82.7%), Local governance (83.0%)

Q20 Koizumi Cabinet performance in general (94.2%)

Q26 The effect of Citizen Judge System
Judicial process will become easier to understand for ordinal citizens (79.3%)
The processing-time of judicial contest will speed up (74.9%)
The understanding of citizens towards judicial branch will be deepened (76.2%)
There is a risk of inappropriate judgments (77.0%)

Q27 Willingness to become a citizen judge, if selected (85.9%)

Q34 Agree/disagree towards the utilization of referendum (88.3%)

Q36 Party Identification
(1) If someone denigrate [XX party] ,do you feel like you are violated?
LDP (88.7%), DPJ(87.1%), CGP(6.6%), JCP(86.0%), SDP (85.6%), Non party affiliation (85.5%)
(2) Do you feel like you think and behave in the same way as the leaners of [XX party]?
LDP (85.5%), DPJ (83.5%), CGP (83.1%), JCP (82.9%), SDP (82.4%), Non party affiliation (81.6%)

Q41 Opinions about tax
(1) Should burden everyone with tax (97.9%)
(2) Should burden according to the level of income, means high-income earners pay more (97.6%)
(3) Should burden couples without children and singles heavier (94.6%)
(4) Should burden people taking care of children and elders less with tax (94.3%)

Q44 Assume that there is one policy which can surely change the Japanese economy, while the possibilities of getting better or worse are even. Do you prefer implementation of this policy? (83.8%)

Q47 About constitutional change, which is closer to your opinion? A) Under democracy, the outdated constitution must be changed without a question. B) Even under democracy, it is not preferable that to frequently change the constitution as the basis of the country. (85.6%)

Q48 The opinions on the current Japanese constitution (5categories) (82.7%)

Q50 If you encounter disputes, such as after the car accident, what should be done? Should be solved by the public organizations like court, or should be tried to solve by the negotiation among those who are involved. (87.5%)

Q56 The opinion about whether to accept foreign workers (92.7%)

	Min.	Max	Mean	Std Err.
Aggregated DK Score	0	41.900	5.865	6.820
Aggregated NA Score	0	41.900	0.859	2.931

Driven by What? Examining the Role of Social Capital on Individuals' Continuous Use of Social Network Sites from a Social Cognitive Perspective

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Abstract

By integrating useful insights from social cognitive theory and social capital theory, we aim to provide a comprehensive model for understanding people's behaviors related to the use of social network sites and examine the role of social capital in individuals' social media selectivity. Propositions that emphasize the triadic interactive relationships among environmental, personal, and behavioral factors were underlined in this study. The results indicated that: (1) the causation between the use of social networks sites and individuals' perceived social capital appears to be mutual; social capital may not only be the result of media selectivity, but it may even be an essential stimulus initiating the start of using social network sites; (2) the influences of the use of social network sites on the generation of individuals' online social capital are proposed to be conditional; this suggests that the significance of such predicted relationships relies on different functions of using social network sites; (3) both the level of dependence on social network sites and the differentiated patterns of the use of social network sites vary according to individuals' perceived offline social capital and their personal characteristic—for instance, personality or self-construal, and social anxiety.

Keywords: Computer-mediated Communication; Social Capital; Social Cognitive Theory; Social Network Sites; Media Usage

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Introduction

The use of social network sites (SNSs) has become a global phenomenon in recent years. Take the most representative social network site Facebook as an example, by the end of 2012 Facebook has already attracted over 1 billion active users who visit their websites every month (AP, 2012). If Facebook were a country, its 1.155 billion users would make the third largest population in the world. With the increasing popularity of social network sites around the world, it also drives researchers to become curious about why people choose it, how they use it, and what kind of influence it may bring to us. These questions perhaps have been raised in numerous prologues introducing a new phenomenon's birth, diffusion, and development, but when we propose them in the computer-mediated communication (CMC), we will find they are extremely difficult to answer by the existing communication knowledge and paradigms. The reason for these difficulties may be partially due to the fact it is not easy to combine the existing communication theories into one framework. After decades of development, communication as an independent discipline has offered us a variety of fundamental research that have been called the milestones, and these studies have been considered as useful explanations in helping us to better understand media's influence. However, due to the lack of a unified theory, these explanations also result in a linear-fragmented media research tendency. Moreover, beginning with the diffusion of the informational communication technologies (ICT) around the 1990s, series of novel communicative tools based on the ICT have penetrated into almost every corner of our life and become the essential avenues for us to access information, maintain social relations, or find something fun. Especially in recent years, the appearance of social network sites (SNSs) has greatly changed individuals' communication patterns and provided a new channel to allow people to be more flexible to communicate, socialize, and interact with people online (Moore & McElroy, 2012). Therefore, attention should be paid to this new communication tool.

Although a growing body of previous studies following traditional communication approach (use and gratification) have provided some empirical help for understanding SNSs users' motivation, behavior, and media behavior related outcomes, there is limited effort to synthesize the process of media selectivity and its effectiveness in a more comprehensive model. Also, as introduced by several CMC researchers, Internet-based communication will not develop its patterns by following the conventional traditions, but the appearing new conceptual approaches are currently revolutionizing our life to enrich the varieties of its CMC models (Harris, 2009; LaRose & Eastin, 2004). Studies about the relations between SNSs' use and effectiveness on individuals will undoubtedly help us to better understand the new media's role in cultivating our society and changing our lives. In this article, insights were drawn from both the social capital theory and the social cognitive theory. By reviewing the recent research of SNS, we discuss the limitations of the existing research and attempt to promote a more comprehensive model for the following studies.

A social cognitive approach

Along with the two world wars, researchers became aware of media's potential influence on shaping individuals' perception. Considering media's power for propaganda and political election, media effects research started with several milestones and demonstrated a shifting picture from bullet theory to limited media effects model. These classic communication models were extensively used in the following studies and greatly helped us to interpret media's role in the mass society system. However, with the emergence of the Internet, it is found that the Internet created a totally new communication model, which gathered features of interpersonal communication, organization communication, and mass communication as a whole. Therefore, sometimes the traditional research model may not be powerful enough to understand the new communication pattern.

One of the major limitations in the previous media effect research is that researchers concentrated so much on relations between the input variables and the output variables without much further observation on the process of media effects' occurrence, development, amplification, and decrease (Bryant, Thompson, & Finklea, 2002). For example, in the early 1990s, computer specialists and social researchers rushed into the examination of the Internet's big role on people and society. Numerous studies focusing on Internet-based communication discussed whether the use of the Internet would bring negative or positive effects to people's social relations (V. Shah, 2001), civic participation (Boulianne, 2009; Shah, Cho, Eveland, & Kwak, 2005), life quality (Stepanikova, Nie, & He, 2010), and psychological wellbeing (Gross, Juvonen, & Gable, 2002; Shaw & Gant, 2002). This kind of linear discussion continued to be followed and applied to the research of SNS. However, the problem is, although we discussed a lot about the media as a stimulus, the process of media effects is still vague for us to capture what kind of effect (self-contained or cumulative), how the effect happens (directly or indirectly), and how long it will take (long-term or short-term). Also, most of these studies conceptualized the medium as external to people and their environment (Lang, 2013) without taking the medium as internal factor resulting in individuals' behavior, which could also be seen as a limitation.

Compared with the stimulus-response approach, the social cognitive theory did not treat mass media as external, but emphasized the triadic, dynamic, and reciprocal interaction among individuals' personal, behavioral, and environmental factors (Bandura, 2002). It was noted that three different factors influenced each other with variable strength (see Figure 1). Seen from the social cognitive perspective, humans are shaped as self-motivated agencies that are self-organizing, proactive, self-reflecting, and self-regulating. Therefore, consistent with U&G, the SCT also see individuals as initiative audiences that would select specific media settings to meet their particular needs. However, different from the U&G, which conducted factor analysis to obtain individuals' media use motivations, the SCT proposed behavior incentives and divided individuals' expectation into six categories of incentives: novel sensory, social, status, monetary, enjoyable activity, and self-reactive incentives (Bandura, 2002). Compared with the U&G, it more precisely and comprehensively reflects the full range of individuals' inner motivation (LaRose & Eastin, 2004).

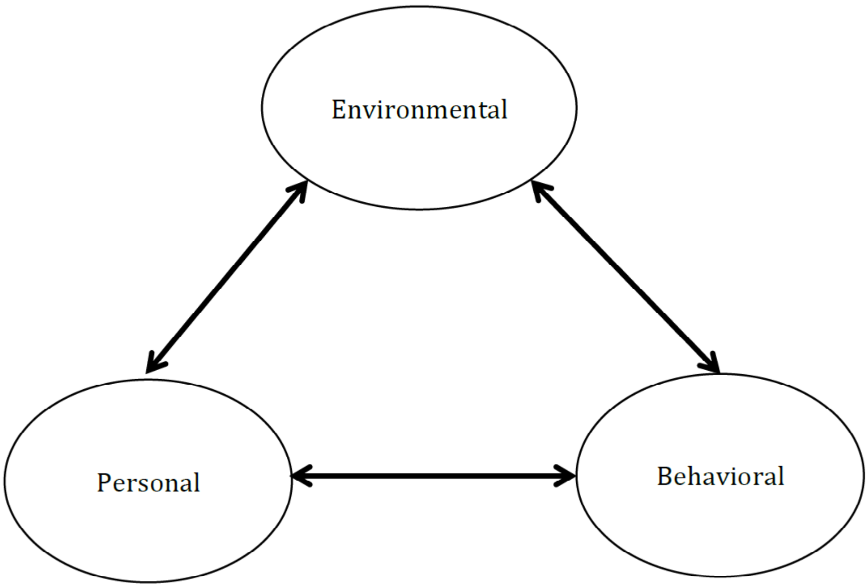

Figure 1. The triadic model of SCT (Bandura, 2002)

Another major merit of SCT is that it not only offers insightful ideas for understanding individuals' cognitive behavior, but also provides a very strong framework for understanding the important role of individuals' intrinsic characteristics and their environment. In previous studies, the environmental variable was always seen as an essential factor influencing individuals' media behaviors, but we should also realize that the continuous use of media might reconstruct the outside environment. Taking the social media use as an example, at the beginning individuals' perceived trust of SNS communities may be related to their self-disclose behavior, but with continued use of SNS for a long while, their perceived trust of the SNS community may be strengthened. Moreover, with frequent interactions with other SNS members, a particular virtual community atmosphere or culture might be well generated within individuals' usage. As noted in the existing literatures, humans are both products and producers of their environment (Bryant et al., 2002), and sometimes media effects sound more like environmental-mediated effects. From this point of view, we argue that the media may not be the determinants, but it plays an essential role on these effects' strength, duration, and patterns. Therefore, the environmental and personal factors should not be isolated from SNS analysis.

Taking social capital as both outcome and predictor

Social capital theory was constructed on the observation of individuals' social network and interpersonal social relations. It was popularized to describe the accumulated social resources and benefits embedded in interpersonal relations, communities, networks, and societies (Chang & Chuang, 2011; Coleman, 1988). It was also described as the social glue to connect interpersonal relations, individuals' social network, and communities together as a whole (Ellison, Steinfield, & Lampe, 2007). As underlined by previous studies, the social capital theory provided us a theoretical framework to understand whether and how individuals' social relations were affected by the use of media (Sum, Mathews, Pourghasem, & Hughes, 2008). With the popularization of the Internet, the relationship between social capital and the use of Internet was intensively debated. At the earlier period, the use of the Internet was generally considered as a negative role in producing individuals' social capital and psychological wellbeing. Based on the time displacement hypothesis, researchers argued that Internet users only consume particular media content out of their personal interest and it might reduce participation in the real world (Kraut et al., 1998). However, this pessimistic view of Internet use does not achieve much empirical evidence. Contradictorily, researchers argued that use of the Internet for interpersonal communication might play a supplementary role in face-to-face interactions (Wellman, Haase, Witte, & Hampton, 2001).

In response to the arguments of the Internet's role in individuals' social capital, some scholars criticized the discussion focused so much on the relations among variables by neglecting the examination of differentiated patterns of Internet use. As noted by Williams (2007), the use of the Internet is neither panacea nor the problem; the examination of the Internet's influences should take individuals' personality and particular use into considerations. Subsequently, it is verified that individuals' patterns of Internet use might vary with the specific environment they're facing (Guo, Li, & Ito, 2013), and the use of CMC tools for social and informational purposes has been found to have positive outcomes, while the use for entertainment and recreational purposes generated the negative influence (Weiser, 2001). Additionally, according to differentiated personalities, the patterns of social media use and its association with outcomes would also differ (Amichai-Hamburger & Vinitzky, 2010; Moore & McElroy, 2012; Ross et al., 2009). For example, Amichai-Hamburger and Vinitzky (2010) examined the relationship between the big five personality traits and Facebook behaviors; their findings demonstrated a significant relationship between the two variables. Kim et al. (2013) explored the moderating role of personality in the influence of individuals' social media use on discussion network heterogeneity and civic engagement. Findings indicated that social media users who scored low on extraversion and openness to experience might be more easily engaged online than individuals with high level of extraversion and openness. These findings confirm the propositions in SCT, which address that the root cause of attitudinal conversion of individuals is probably not the influence from mass media, but from the immediate environment they're facing and the intrinsic prosperities they own (Bandura, 2002). Hence, we proposed these assumptions:

Proposition 1: In the relationship between social media use and social capital, individuals' intrinsic prosperities and specific pattern of social media use play essential roles, which means the outcomes because of continuous social media use greatly depend on how an individual uses the media and what kind of person he or she is.

Regarding related research in the context of SNS, Ellison et al. (2007) conducted a survey at a university to examine the relations between students' SNS use and their perceive social capital. Results suggested that the use of social media was positively associated with individuals' perceived social capital and psychological wellbeing. These studies offered us insightful ideas to understand whether CMC settings will affect individuals' social relations. It is necessary to note that the paradigms used in the previous studies are primarily adopted from the stimulus-response model, which contains a precondition of taking social capital as the outcome. However, the question is whether the precondition itself is reasonable if the perceived social capital as well contributes to the continuous use of social media. For example, in assessing media effects on adolescents' pornography consumption, the process of media selectivity and effects is interactive and the consumption of sexual content might in turn increase adolescents' sexual activities (Brown, 2000). Therefore, some scholars propose that the process of media selectivity and media effects is a reciprocal, mutual process (Slater, 2007), and note the outcomes from media may in turn affect individuals' media behaviors. To apply the proposition on CMC studies, because of individuals' social media use, the favorable benefits on their social relations may in turn enhance their motivation to use. For instance, Chiu et al. (2006) suggested individuals' perceived social capital in virtual communities was tightly associated with members' knowledge sharing behaviors. Moreover, according to diffusion and innovation proposition, it also mentions that the diffusion of innovations relies on the size of individuals' social networks; people owning larger social networks may more easily adopt innovations than people with few social relations (Rogers, 2010). Therefore, we argued that the fundamental reason for individuals to adopt a new technology might not be the influence from media, but the influence from their social networks. When people find others around are all using the same new communication tool, it will increase the possibility for him or her to try it too. As shown in Figure 2, people get benefits from the use of social media, which will enable them to have a stronger desire to use it in the future. Hence, we proposed the following assumption:

Proposition 2: Individuals' social capital is not only an outcome affected by social media use; the outcomes of social media use will also in turn to enhance individuals' continuous SNS usage.

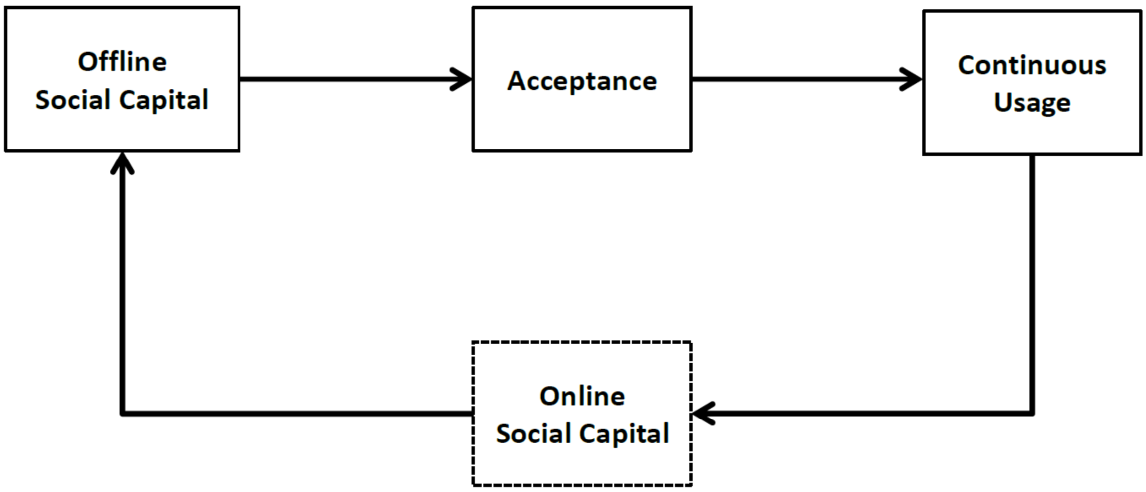

Figure 2. Mutual affecting process of social media use and social capital

Limitations of the existing framework and the future directions

In sum, in this paper we aim to synthesize the process of social media use and its social influence in a more comprehensive model (see Figure 3) for future research. By reviewing the previous studies, we found three major limitations.

First, discussions about social media's effects primarily used a linear stimulus and response model by ignoring the potential influence of the environment and individuals' personal characteristics. The future studies should consider variables representing individuals' intrinsic characteristics such as personality, self-construal, social anxiety as mediators or moderators to more deeply explore the process of media effects. Research on how these effects happen with media selectivity is in an urgent need of future research.

Second, regarding the process of media effects, rare cases explored the dynamic process by using longitudinal methods. In the absence of longitudinal examination, it is difficult for us to conclude the causation between independent variable and its outcomes. Also, although we know there is a significant relationship between social media use and perceived social capital, it is still difficult to answer how long these effects will last and what kind of change might occur. Therefore, longitudinal methods should be considered in the follow-up studies.

And the last, the previous studies only viewed social capital as the outcome of social media use. However, as discussed above, social capital's effect might also become the reason of individuals' social media behaviors, since the process of media selectivity and media effects might be reciprocal and mutual influential. Therefore, the next step of research should attempt to use individuals' perceived social capital as an independent variable to predict their continuous use of social media.

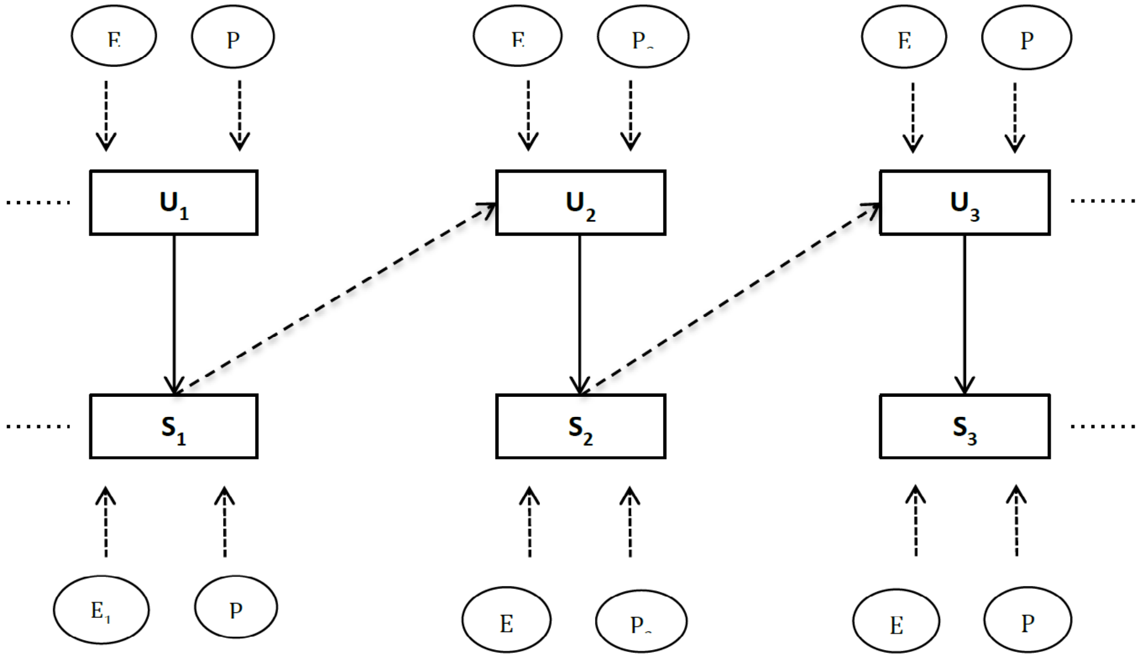

Figure 3. A longitudinal model of the interactive process of media use and social capital (E = environment; P = personal characteristic; U = the use of social media; S = perceived social capital)

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Destination Image and Destination Personality: A Case Study of Hua-Hin Prachubkirikhan

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Abstract

The study is based on the research of Hosany, Ekinci and Uysal (2006). 400 tourists, who visited Hua-Hin Prachubkirikhan, were sample. The research instrument was questionnaire while the usage statistical techniques were frequency, percentage, mean, standard deviation, principal component analysis, and canonical correlation. It was found that destination image divided into 3 parts consisted of affective, physical atmosphere, accessibility as destination personality had 3 components composed of sincerity, excitement, and conviviality. The result from canonical analysis showed that destination image related with destination personality.

Keywords: Destination Image, Destination Personality, Hua-Hin

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Introduction

Tourism is a human activity possibly traced to the ancient times. In such previous times, the aim of tourism, however, was mainly involved with the surveys, not the relaxation. Thanks to the advanced technology and global transportation, tourism has been dramatically changed. The current economic and political tension also enhance the popularity of tourism as people wish to have a tourism for relaxation, creation, inspiration, relationship, and so on. Tourism does not only make people learn about the culture and tradition but also increases the community's or the nation's economic growth and social development. Brand image makes the brand more popular and provides many benefits; for instance, the brand image makes the products different from the competitors (Lim and O'Cass, 2001); the customers may hold that the products have higher quality (Erdem, 1998). According to the previous researches such as the one of Karande et al. (1997), the brand image was associated with the brand personality. However, for the tourism, the correlation between the destination image and the destination personality should be studied instead (Hosany, Ekinci, and Uysal, 2006).

There are many researches related to the destination image e.g. the studies of Zhang et al. (2014) and Chen, Chen, Okumus (2013). However, only a few researches focus on the correlation between the destination image and the destination personality such as the research of Chen and Phou (2013) investigating the correlation between the destination image and the destination personality of the tourists visiting Ankor Wat, Cambodia. Such research found that the destination image was positively correlated to the destination personality. However, the correlation between destination image and the destination personality of the tourism in Thailand has not been yet studied.

Having a trip, most of the tourists may think about the beautiful destinations, delicious foods, and fabulous atmosphere. Hua Hin is one of the places that can answer this preference. In fact, Hua Hin has been visited by the tourists for ever 100 years. The popularity of Hua Hin increased when the royal palace, namely, Klai Kangwon Palace was built in Hua Hin. Since then, many weekend houses were built at Hua Hin. At present, Hua Hin is full of resorts and golf courses, temples and markets that attract the tourists in Asia and around the world. As such, Hua Hin is the outstanding tourism industrial city that expresses the identity of Thailand supremely.

This research, from the above reasons, aimed to investigate the correlation between the destination image and the destination personality using Hua Hin District, Prachuap Khirikhan Province as the research area.

Research Methodology

1. This research is the quantitative study surveying the opinions of the Thai tourists visiting Hua Hin District, Prachuap Khirikhan Province on the destination image and the destination personality.
2. The population of this research consisted of 1,062,609 tourists visiting Hua Hin (Department of Tourism, 2010). The sample group was calculated using the Yamane method. Finally, 400 samples were obtained and randomly sampled using the convenience sampling during August 2013 to September 2013.
3. Questionnaire was used as research instrument. The questionnaire comprised three parts of general data of the respondents, the tourism behaviors of the tourists visiting Hua Hin, and the opinions towards the destination image and the destination personality, respectively.
4. The research initially began with the literature review for the conceptual framework, theories and researches compiled from the books, journals and related articles to gain the issues for drafting the questionnaire in accord with the research objectives. The validity of the drafted question was considered by the two experts of marketing and tourism. Only the questions consistent with the Index of Item Objective Congruence (IOC) over 0.50 were selected. The questionnaire adjusted and approved by the experts was tried out with 30 tourists visiting Cha-am District, Petchaburi Province. It was found that the Alpha Conbrach Coefficients of the questionnaire for the destination image and the destination personality were 0.891 and 0.905, respectively, indicating that the questionnaire had high confidence. Therefore, this questionnaire was used in the data collection with the samples.
5. The data were verified whereas the verified data were analyzed using the SPSS program whereas the general data of the respondents and the tourism behaviors of the tourists were analyzed by the descriptive statistics of frequency and percentage.

The factors affecting the destination image and the destination personality of the Thai tourists visiting Hua Hin District, Prachuap Khirikhan Province, were analyzed by the Principal Component Analysis and Varimax Axis. The Eigenvalue of each factor should be high than 1 whereas the factor loading absolute value should be over 0.5 (Hair et al., 2009).

In addition, the Canonical Correlation method was exploited to test the correlation between the destination image and the destination personality.

Results

1. The general data analysis revealed that most of the samples were female, (n = 247, 61.75%), aged 21-30 years old (n = 184, 46.00%), and single (n = 281, 70.25%). They obtained bachelor's degree education (n = 309, 77.25%). Most of them had a domicile in the central region (n = 172, 33.00%). They were the employees working at private companies (n = 221, 55.25%) and obtained the average household income in the amount of Bt. 30,001 -50,000 per month (n = 270, 67.50%), See Table 1.

Table 1.
General Data of Samples

Description	Frequency (n=400)	Percentage
Gender		
Female	247	61.75
Male	153	38.25
Age		
Lower than 21 years old	115	28.75
21 – 30 years old	184	46.00
31 – 40 years old	71	17.75
41 – 50 years old	22	5.50
51 – 60 years old	5	1.25
More than 60 years old	3	0.75
Marriage Status		
Single	281	70.25
Marriage	101	25.25
Divorce	18	4.50
Education Level		
Primary School	4	1.00
Secondary School	38	9.50
Vocational	17	4.25
Bachelor Degree	309	77.25
Above Bachelor Degree	32	8.00
Hometown		
Central	172	43.00
Western	124	31.00
Southern	68	17.00
Northern	14	3.50
Northeastern	12	3.00
Eastern	10	2.50
Occupation		
Private Employee	221	45.25
Student / Undergraduate Student	76	19.00
Government Officer	62	15.50
Own Business	35	8.75
Other	6	1.50

Description	Frequency (n=400)	Percentage
Monthly Revenue		
Lower than 10,000 THB	14	3.50
10,001 – 20,000 THB	37	9.25
20,001 – 30,000 THB	25	6.25
30,001 – 50,000 THB	270	67.50
More than 50,000 THB	54	13.50

2. The analysis of the tourism behaviors indicated that most of the respondents used to visit Hua Hin in the previous three years (n = 299, 74.75%); they had most visited Hua Hin for 2-3 times (n = 148, 37.00%); they prepared themselves before the trip for 3-7 days (n = 211, 52.75%); most of them travelled with spouse/boyfriend or girlfriend (n = 188, 47.00%); they used internet for tourist information searching and room reservation (n = 277, 69.25%), See Table 2.

Table 2.
Tourist Behavior of Samples

Description	Frequency (n=400)	Percentage
Used / not used to visit Hua-Hin in 3 years		
Used to	299	74.75
Not used to	101	25.25
How many times they visit Hua-Hin?		
Never	30	7.50
1 time	63	15.75
2-3 times	148	37.00
4-5 times	102	25.50
More than 5 times	57	14.25
How many days they prepare for visiting Hua-Hin?		
Less than 3 days	145	36.25
3-7 days	211	52.75
7 days – 1 month	30	7.50
1 – 3 months	8	2.00
More than 3 months	6	1.50
Who they travel with?		
Spouse/Boyfriend or Girlfriend	188	47.00
Friend	137	34.25
Family	70	17.50
Alone	5	1.25
Which channel they prepare for visiting Hua-Hin?		
Internet	277	69.25
Friend	93	23.25
Television	12	3.00
Magazine	11	2.75
Newspaper	7	1.75

3. The factor analysis results related to the destination image and the destination personality of the Thai tourists in Hua Hin District, Prachuap Khirikhan Province, could be separately concluded as follows:

a. The factor analysis related to the destination image comprised 15 factors that could be divided into three components. The Kaiser-Meyer-Olkin was 0.792 whereas the Bartlett's Test of Sphericity was 7548.500 (Sig = 0.000). The three components consisted of affective, physical atmosphere, and accessibility with the total variance of 73.695%, See Table 3.

Table 3.
Factor Loading, Mean, S.D. of Each Component of Destination Image

Factor	Factor Loading	Mean	S.D.
Component 1: Affective (Eigenvalues = 3.745 Variance = 26.749%)			
Pleasant	0.980	4.44	1.10
Relaxing	0.971	4.54	0.90
Nice Place	0.969	4.59	0.97
Exciting	0.938	4.31	0.96
Component 2: Atmosphere (Eigenvalues = 3.720 Variance = 26.568%)			
Silence	0.977	4.41	1.09
Innocent	0.968	4.53	0.88
Sleepy	0.967	4.60	0.93
Sparse	0.932	4.30	0.92
Component 3: Accessibility (Eigenvalues = 2.785 Variance = 19.895%)			
Lively	0.972	4.57	0.95
Friendly	0.961	4.52	0.89
Interesting	0.951	4.29	0.93

b. The factor analysis related to the destination personality comprised 15 factors that could be divided into three components. The Kaiser-Meyer-Olkin was 0.823 whereas the Bartlett's Test of Sphericity was 6617.544 (Sig = 0.000). The three components consisted of sincerity, excitement, and conviviality with the total variance of 93.605%, See Table 4.

Table 4.
Factor Loading, Mean, S.D. of Each Component of Destination Personality

Factor	Factor Loading	Mean	S.D.
Component 1: Sincerity (Eigenvalues = 3.747 Variance = 34.061%)			
Sincere	0.978	4.31	0.98
Successful	0.975	4.42	0.89
Reliable	0.961	4.54	0.78
Intelligent	0.955	4.14	1.00
Component 2: Excitement (Eigenvalues = 3.717 Variance = 33.787%)			
Original	0.974	4.42	0.91
Spirited	0.974	4.32	0.98
Daring	0.964	4.53	0.80
Excitement	0.938	4.01	1.00
Component 3: Conviviality (Eigenvalues = 2.833 Variance = 25.758%)			
Friendly	0.977	4.30	1.03
Family Oriented	0.970	4.15	1.05
Charming	0.961	4.55	0.81

4. Analyzing the correlation between the destination image and the destination personality by the Canonical Correlation, the affective, physical atmosphere and accessibility factors were correlated to the destination personality whereas the factors of sincerity and excitement were correlated to the destination image. However, the factor of conviviality was not associated with any factors. Note that only the first variate was used since the Canonical Loading value was higher than 0.4, as exhibited in Table 5.

Table 5.
Canonical Loadings for Destination Images and Destination Personality

Items	Variate Number		
	1	2	3
Canonical Correlation	0.54	0.22	0.14
Destination Image			
Affective	-0.78	0.21	-0.32
Physical Atmosphare	-0.54	-0.50	0.08
Accessibility	-0.88	0.45	0.21
Destination Personality			
Sincerity	-0.93	0.08	0.04
Excitement	-0.88	-0.34	0.66
Conviviality	-0.12	-0.91	-0.52

Conclusion

From this research, most samples were female, aged 21-30 years old, and single. They obtained the education in bachelor's degree level and had a domicile in the central region. The samples worked at the private companies and obtained the average household income in the amount of Bt. 30,001 – 50,000 per month.

The analysis of the tourism behaviors indicated that most of the respondents used to visit Hua Hin District, Prachuap Khirikhan Province, in the previous three years; they had most visited Hua Hin District, Prachuap Khirikhan Province, for 2-3 times; they prepared themselves before the trip for 3-7 days; most of them travelled with their spouse/boyfriend or girlfriend; and they used internet for tourist information searching and room reservation.

The factor analysis related to the destination image comprised 15 factors that could be divided into three components - affective, physical atmosphere, and accessibility whereas the factor analysis related to the destination personality comprised 15 factors that could be divided into three components - sincerity, excitement, and conviviality, respectively.

Analyzing the correlation between the destination image and the destination personality by the Canonical Correlation, the affective, physical atmosphere and accessibility factors were correlated to the destination personality whereas the factors of sincerity and excitement were correlated to the destination image. However, the factor of conviviality was not associated with any factors

In summary, the research findings especially the analysis of factors and correlation analysis indicated that these findings are in accord with the ones of Chen and Phou (2013) and Hosany, Ekinci and Uysal (2006). Hence, it can be reaffirmed that the destination image was correlated to the destination personality. In other words, as a result, it can be concluded that the brand image was associated with the brand personality. However, there are still some limitations of this research in particular the factors used in the analysis as most of them were adapted from the overseas marketing researches and may not be suitable to the Thai tourism contexts. Thus, other methods should be exploited to obtain the factors that are more compatible for the tourism-context researches.

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Effects of Political Campaing Materials on Party and Non Party Voting Supporters

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Abstract

Davison (1983) posited that individuals will perceive mediated messages to have their greatest impact not "on me" or you" but on them – the third person. Research suggests that people judge others to be more influenced than they are by media, advertising, libelous messages, media violence and pornography and television drama. The theory referred to as the Third Person Effect developed on the postulation that audience members would not admit that media had any direct effect on them, but would believe that the media did effect others, the third person (Tewksbury, Moy and Weis, 2004; Price, Tewksbury and Huang, 1998).

While people would discount the effects of negative or biased messages, they would, under the notion of the First Person Effect, readily admit being influenced. This study was based on studying the effects of political literature on party and opposition party supporters taking the messages to be positive to one group and biased and partisan to another group.

The study focuses on the assumed effects of political literature on own party and opposition party supporters. It traces the degree of influence of Malaysia's largest political party, Barisan Nasional (BN) political campaign materials on own supporters and on non-BN party supporters.

While the Third Person Effect assumes a null or minimal effect on own self and some or strong effect on others, the question that arises are on welcoming favorable media effects on oneself and assuming unfavorable effects on others.

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INTRODUCTION

This study explores the third-person effect among Malaysian voters by discussing the influence of party controlled political campaign materials (brochures, pamphlets, publications and speeches) on different segments of the Malaysian voting population (self, family, party supporters, opposition supporters, and the undecided voters). It would study whether the groups, one of which would regard the message as partisan and the other as congenial, would have an influence on self and on the others.

Davison (1983) posited that individuals will perceive mediated messages to have their greatest impact not "on me" or you" but on them – the third person. Research suggests that people judge others to be more influenced than they are by advertising, libelous messages, media violence and pornography and television drama. The theory referred to as the Third Person Effect developed on the postulation that audience members would not admit that messages had any direct effect on them, but would believe that they did affect others, the third person (Tewksbury, Moy and Weis, 2004; Price, Tewksbury and Huang, 1998).

Third Person Effect

The theory referred to as the Third Person Effect postulated that audience members would deny media's direct effect on them but would perceive media's effect on others, that is on the third person. The audience would therefore react on the assumption that the media had an effect on others, and therefore the media was an important source of effect. (Tewksbury, Moy and Weis, 2004; Price, Tewksbury and Huang, 1998).

Besides media, research suggests that people judge others to be more influenced than they are by advertising, libelous messages, media violence and pornography and television drama.

In their meta-analysis on the perceptual hypothesis of the Third Person Effect theory, Paul, Salwen and Dupange (2000) found that 9 out of 32 research studies conducted on the topic focused on the perceptual effects of political content in the media

Several reasons have been attributed on why people tend to underestimate the media influence on self. One reason is cognitive in origin (Perlof, 1993). Other studies have looked into its psychological origins for explanation. Researchers agree that several different psychological mechanisms might predict and cause the phenomenon (Brosius and Engel, 1996) (Paul, Salwen and Dupange, 2000).

This third-person effect is more visible when it is transmitted into behaviors. This self-other discrepancy, according to Jensen and Hurley (2002), is now referred to as the perceptual hypothesis within the third-person effect research.

Impersonal impact or social distance refers to how people find media effects to be more pronounced on others who are psychologically or socially different for them. Lambe and McLeod (2002) refer to this mechanism as the ingroup/outgroup condition. People who are from the same social group tend to believe that they have the same level of media-efficacy. Further studies have indicated that the level of third-person effect increases when a person believes it is socially undesirable to be affected by the communication, especially with what Price and Tewksbury (1996) concluded as negative messages from the media.

Not many studies using the Theory of Third Person Effects had been applied in analyzing election campaigns, at least not to the extent as the Theory of Agenda Setting. This study highlighted the results when the Third Person Effect was used in understanding the recent Malaysian elections. The theory can contribute significantly to the study of political communication as it is able to provide insights to how voters perceive the influence of political campaign materials.

This study will assess the effects of a partisan message emanating from one political party on two different recipients, one group responding positively to the message as they are of the same political inclination and another group of opposing political affiliation would respond negatively. One group would therefore deem the message congenial and the other group would deem the message to be negative or biased.

Another issue of concern will be the concept of distant other. Previous studies have not elaborated on the concept of distant other except by differently categorizing them by age, socioeconomic status or from different locale. In our study we would provide here forms of distant others; those different in political affiliation as against the group being studied. In the group where BN supporters were the main recipients of messages, those against the group would be the political opponents (their opposition parties and the non-voters) would be two categories of distant others. We would also include another form of self namely their families, assessing whether they perceive their families to be influenced by these political literature.

Hypothesis Testing

People will likely accept the effects of congenial message on themselves as they perceive it to be in tune with their own cognitive needs. Therefore it is hypothesized that the voters would claim that the BN campaign materials would have an effect on own self but would also affect the Opposition party supporters.

H1: BN party supporters would perceive that the BN Political campaign materials would have **an influence on themselves** and would perceive that they had a small influence among the Opposition Supporters and the Undecided.

Logically positive messages received by the self would make them to say that socially distant others who are similar to them would also be likely to positive receive the messages. Similar distant others would be perceived to be favorable to receive the messages but PR supporters would be perceived not to be influenced by them. Hence the Hypothesis that:

H2: BN party supporters would be perceived **to be influenced** by the BN materials as they are **Similar others to the Self** while distant others like PR supporters would not be perceived to be influenced by these BN materials.

People who receive negative or biased messages will discount the effects on themselves but will say that others would readily accept and be influenced by them. There it is hypothesized that:

H3: Opposition party supporters would perceive that the BN Political Campaign Materials would not have any **influence on themselves but would perceive they had a big effect on BN supporters.**

The Self is considered as the first person or respondents in the study (Chapin 2008). The respondents were tested on the influence of the BN political communication devices on the respondents

H4: BN and Opposition party supporters would perceive that the BN Political Campaign materials have an **influence on others** (opposition supporters and uncertain voters**)**.

Context of Study

A study conducted in July after the 2013 Malaysian elections sought the opinion of 1463 voter respondents drawn nation-wide surveying their opinions on several matters concerning their behavior during the elections held on 5 May 2013.

The 13 General saw a tough fight between the present government party, Barisan Nasional (National Front/BN) and Pakatan Rakyat (People's Party/PR). BN has been in power since Independence in 1957 and has won a two third majority of seats in Parliament except for 2008 when it lost its two thirds majority. In 2013, for the second consecutive time, BN lost its two thirds majority of seats in Parliament due to the great challenge given by Pakatan Rakyat. It would therefore be worthwhile to investigate the effects the political campaigns had on the voters. We selected a piece of the campaign materials (brochures, pamphlets, speeches) and asked respondents to assess the effects these campaign materials had on them and on the others.

A total of 1463 respondents were randomly selected by quota sampling of voters nation-wide. Two parliamentary constituencies were selected from each state (except for the state of Perlis because of the limited number of parliamentary seats) and from these constituencies the respondents were selected based on race, gender and education, that also reflected the composition of voters in that constituency.

A total of 100 enumerators and 12 supervisors were involved in the whole exercise. Besides the social-demographic profile of the respondents, we also asked them about their media use, their political interest, the party they had voted for and the assessment of the influence of the BN party communication on themselves, their families, on the respective party supporters and on the uncertain voters.

The total respondents were divided into two categories by asking a question as to which party they would vote if elections were to be held "tomorrow." Those who would vote for BN and another group who would vote for the Opposition were asked whether these BN campaign materials had any effect on them, their families, on supporters of BN, supporters of opposition parties and uncertain voters.

Third Person Perception Index

An ANOVA was run on the answers given by the respondents. How much do the BN materials influence own self and how do you perceive the effect of these materials on others, such as:

(1) Own self
(2) Your family members
(3) Supporters of BN
(4) Supporters of PR Opposition Parties
(5) Uncertain Voters.

The results provided information on how the respondents perceived the materials had affected them, their family, the respective political parties and the uncertain voters. To obtain the Third Person Effect, the scores on the first person (self and family) individually were subtracted from the second scores. A resulting score of zero indicates no effect, while a negative score reveals the reverse third person and a positive score reveals a third person effect.

FINDINGS OF THE STUDY

The current study asked their views on the BN Political Campaign Materials (brochures, pamphlets, publications, leaflets), *ceramah* (speeches/lectures) and (BN) publications. The summary below (Table 1) is based on the cross tabulations of the findings of the study. Out of the total respondents (1463), BN supporters (47.5%) and opposition party supporters (52.4%) were studied. From the study (table 1), nearly half of the total respondents were Malay (Bumiputera) (49.4%), two fifths comprised of Chinese (42.2%) and less than ten percent were Indians (8.3%). Most of the respondents were in the age group 21-50 years old. (In the last elections May 2013, BN gained 47% while the Opposition Parties won 51% of the popular votes.)

Table 1.
Demographics of Respondents (N= 1463)

Respondent Demographics (%)		
Gender	Male	52.9
	Female	47.1
Race	Malay/ Bumiputera	49.4
	Chinese	42.2
	Indian	8.3
Age Group	21-35 years	38.2
	36-50 years	37.5
	More than 51 years	24.3
Choice of Party	BN supporters (N=695)	47.5
	PAS supporters	11.6
	DAP supporters	24.9
	PKR supporters	16.0
	Total Opposition supporters (N=768)	52.4

Out of the total number of 1463 respondents, about 63% of the respondents (inclusive of BN and opposition party supporters) claim to have been influenced slightly, moderately or highly by the BN political communication devices. On the other hand, about 547 of the total respondents (37%) did not claim to be influenced by the BN political communication devices. A greater level of influence on self would indicate a lesser probability of a third person effect and a greater probability of a "reverse" third person effect. The summary of the findings is presented in table 2.

Table 2.
Perceived influence of BN Political Communication Devices on respondents

	On Self	Perceived influence (%)	
		No Influence	Influence
BN (N= 695)	BN supporters	**12**	**88**
Opposition Party (N=768)	PAS supporters	72	28
	DAP supporters	62	38
	PKR supporters	48	52
	Total Opposition party supporters	**60**	**40**
On Total Population (N= 1463)		**37**	**63**

No influence (1= not influenced at all, 2= not influenced) Influence (3= slightly influenced, 4= influenced, 5=highly influenced)

The study found that 88% of the respondents as a whole say that BN party supporters would be influenced by the BN political communication devices while only 12% say the materials would have no influence on themselves.

The first hypothesis is supported based on the fact that 88% of respondents perceived an influence on BN party supporters. The high influence percentage on the BN party supporters triggers the possibility for a 'reverse' third person or First Person Effect due to the perceived desirability of the BN message content to be credible or positive and thus people attribute more effects to self (Huh, Delorme & Reid, 2004).

A majority (60%) of the opposition supporters were not influenced by the BN political campaign materials as undesirable messages were prone to trigger the third-person effect. Thus, this lack of influence on the self by the PR party respondents indicates a classic third-person effect. In order to confirm the third-person effect theory, the present study regards similar others to the self. Thus the category self is regarded as the respondent and any person who is closely associated with the respondent, including family, friends, and those with similar traits and political orientation. The "others" in the study is understood as those who are socially distant from the respondent. Thus people who have similar attributes are likely to respond in the way that the self does than the others who are distant from the self (Table 3).

Table 3.
Perceived influence of BN Political Communication Devices on Family and Like Party Supporters

Respondents (N= 1463)		Perceived influence (%) On Self (family)		Perceived influence (%) On Self (like party supporters)	
		No Influenced	Influenced	No Influenced	Influenced
BN (N= 695)	BN supporters family	12	**88**	9	**91**
Opposition Party (N= 768)	PAS supporters family	65	**35**	52	**49**
	DAP supporters family	57	**43**	52	**48**
	PKR supporters family	46	**54**	49	**51**
	Total Opposition party supporters	55	**45**	51	**49**

No influence (1= not influenced at all, 2= not influenced) Influence (3= slightly influenced, 4= influenced, 5=highly influenced)

Table 3 found that that the BN political communication devices indicated a significant level of influence on the BN party supporter's immediate family (88%) and other BN supporters (91%). Similarly, the opposition party supporters claim that a higher percentage (55%) of their families were not influenced by the BN political communication devices while only a small percentage of 45% of the opposition party supporters had an impact on their families Furthermore, the opposition voters believed that about 51% of those supporting other parties besides BN are not influenced by the BN political devices. However, they agree that 49% of the opposition supporters can be influenced by the BN political devices. This finding can be attributed again to the undesirability of the BN message on the opposition party respondents and accordingly on their families. The overall findings on perceived influence on the respondent's family support the second hypothesis. Supporters of BN perceive to be influenced by the BN political devices (91%) as they are closely associated with the respondent and have similar political orientation. Likewise, the opposition supporters predict a 49% influence of BN political devices on opposition party supporters and more than 50 percent believe that the BN political devices will not influence supporters of like parties.

We extracted the two populations of BN supporters and PR supporters to test the influence of BN materials on them, on their families, BN supporters, PR supporters and on the undecided voters.

Table 4.
Perceived Influence of BN Materials on BN Respondents and their Perceived Influence on Own Families, on other BN supporters, on PR Supporters and Undecided Voters. (N=695)

		Diff	T-Value	Probability
Self	3.77 SD1.12			
Family	3.79 SD1.10	0.02	-0.592``	NS
BN	3.98 SD1.06	0.19	-5.49	0.00
PR	3.28 SD1.10	0.49	11.084	0.00
Undecided	3.27 SD1.11	0.5	12.561	0.00

The climax of this study is tested in the third and fourth hypothesis whereby the influence of the BN political communication devices on the others or the 'third' person is tested. The others for the respondents (BN party supporters & opposition party supporters) include the distant BN supporters according to the Opposition voters and the undecided voters or the distant opposition voters according to the BN supporters and the undecided voters. The findings of the perceived influence on the others are presented in table 4 whereby the BN party respondents perceived the BN political communication devices to have some level of influence on the distant others. Positive content is expected to be more influential and to have beneficial outcomes for the individual than negative content (Duck, Terry & Hogg, 1995).

Table 4 shows that there are significant differences between self and others (the distant BN supporters according to the Opposition voters, the distant opposition voters according to the BN supporters and the undecided voters). Hence, although there are significant differences yet the differences need to be explained as there was a First Person Effect between self and BN supporters, but there was a null effect between self and PR supporters and self and the undecided voters. What is meant here is that the self (who were voters of BN) perceived that the BN materials would influence more BN supporters, but would not influence that many PR supporters and the undecided voters.

Table 5.
Perceived influence of BN Political Communication Devices on Others (third person)

On Distant Other		No Influence (%)			Influence (%)			Total (%) On Other (according to each party supporter)
		Other BN supporters	Opposition supporters	Uncertain voters	Other BN supporters	Opposition supporters	Uncertain voters	
BN	BN supporters	9	22	24	91	**78**	**76**	**77**
Opposition party supporters	PAS supporters	21	52	52	**79**	48	**48**	**64**
	DAP supporters	23	52	54	**77**	48	**46**	**62**
	PKR supporters	33	49	45	**67**	51	**55**	**61**
	Total Opposition party supporters	26	51	51	**74**	49	**49**	**62**

No influence (1= not influenced at all, 2= not influenced) Influence (3= slightly influenced, 4= influenced, 5=highly influenced)

In order to comprehend the implication of the third-person effect theory in the study, the two groups of the others (the distant BN supporters according to the Opposition voters and the undecided voters or the distant opposition voters according to the BN supporters and the undecided voters) are merged into one variable as others (table 5). The perceived influence of the BN party supporters and opposition party supporters are simultaneously compared and analyzed to highlight the essence of the third-person effect and the *reverse* third-person effect.

The findings (table 5) of the BN political communication effects on distant others yielded some interesting results. The distant others was a total of the uncertain voters and opposition supporters of either party (BN or Opposition party). As expected, more than half of the BN party respondents believed that the BN political communication devices was likely to have some influence on the 'distant' others (77%). Only about 22% of the BN party respondents felt that there could be no influence on the opposition supporters and about 24% felt that there could be no influence on uncertain voters. This finding could be due to the presumed credibility of the source of the message. As Banning & Sweetser (2007) say that greater credibility could lead to a reduced possibility of a third-person effect or on the other hand, a greater possibility of a '*reverse*' third person effect.

Table 6.
Perceived Influence of BN Materials on PR Respondents and their Perceived Influence on Own Families, on other BN supporters, on PR Supporters and Undecided Voters (N=768)

Self	2.39 SD 1.11	Diff	T-Value	Probability
Family	2.46 SD1.12	0.07	-2.630	0.00
BN	3.31 SD1.20	0.92	-19.63	0.00
PR	2.52 SD0.99	0.13	-3.752	0.00
Undecided	2.48	0.09	-2.598	0.00

Looking into the testing of the fourth hypothesis, we find that more than half of the opposition voters believe that there could be no influence over the uncertain voters while only 26% of the opposition supporters perceive that the BN political communication devices have no influence on the other BN respondents. However, about 62% of the opposition party respondents believe that the BN political communication devices could have an influence on the other BN respondents. The findings of the perceived influence on distant others by the respondents (both BN party respondents and opposition party respondents) yielded an interesting and somewhat conflicting results. The next section will provide a broader understanding of what transpired in the study.

Table 6 shows that there is a significant distance between self and the others (BN, PR supporters and the undecided voters). The biggest difference is between self and the other BN supporters. It is evident that PR supporters believed that BN materials had an impact on others although they discounted an influence on themselves.

DISCUSSION ON THE FINDINGS OF THE STUDY

The current study focuses on the influence of the Barisan National political campaign materials on Malaysian voters. The study begins with a premise that when a message has low likelihood or perceived negative influence (undesirable) then the third person effect is more obvious (Shah, Faber & Youn, 1999). Simply stated the message will have a *least* or no influence on "me" (the first person) and a greater influence on "them" (the other BN voters, non-BN supporters and non-supporters of other parties). But the concept of others in this study takes a strain because the PR supporters are actually a close self and a self with the families. It is similar with the BN respondents when the other (BN supporters) are actually their self because of the political affinity.

However, the findings of the study yielded an interesting and somewhat conflicting result. It was found that when the message was perceived to be desirable by the respondents, there was a self-assured 'reverse' third person effect where the self is assumed to be more receptive of the desirable message influence while "others" (family) are perceived to be either slightly positively influenced, negatively influenced to some degree less than the self or not influenced at all (Andsagar & White, 2007). Simply stated the message will have a *greater* influence on "me" (the first person i.e. BN Voters) and a *least* or no influence on "them" (the other BN voters, PR supporters and undecided of other parties). The study found that the BN respondents displayed an extraordinary level of confidence and indicated that there was a positive reverse third person effect when influenced by the BN political communication devices. A summary of the findings is provided in table 7 for a better discussion on the implication of the reverse third person effect. The influence of the BN political communication devices by the respondents (BN party supporters and opposition party supporters) on self and others are summarized (table 6).

Table 7.
Perceived influence of BN Political Communication Devices on self and others

Respondents (N=1463)		Perceived level of influence (%): On **Self** (respondents, respondent's family, similar party supporters**)**	Perceived level of influence (%): On **Others** **(**other party supporters (BN or non-BN supporters) and uncertain voters)
BN supporters		**89**	**77**
Opposition Party supporters	PAS supporters	**37**	**64**
	DAP supporters	**43**	**62**
	PKR supporters	**52**	**61**
	Total Opposition party supporters	**44**	**62**

Influence (3= slightly influenced, 4= influenced, 5=highly influenced)

Table 6 summarizes the total findings of respondents influenced by the BN political campaign materials with respect to self and others. The BN supporters claim to have a greater influence on self (89%) compared to others (77%). The BN political materials are considered to be a desirable message for the BN. As a result, the respondents perceive a positive influence on themselves and on their like or closest to them (family). However the influence on the distant other is perceived to be comparatively less and this could be attributed to the social distance between the self and distant others or the level of message desirability. Thus it could be understood that the BN party supporters are persuaded by the positive and credible message given by the BN political communication devices and subsequently the voters feel "*I am smart enough to recognize the value of the message*" (Huh, Delorme & Reid, 2004). Therefore, the first person or BN respondents feel proud and contented when exposed to their party communication devices and they felt that the others and distant others should also share a similar sentiment. This understanding is further elaborated based on the *reverse* third-person effect model proposed by Andsagar & White (2007).

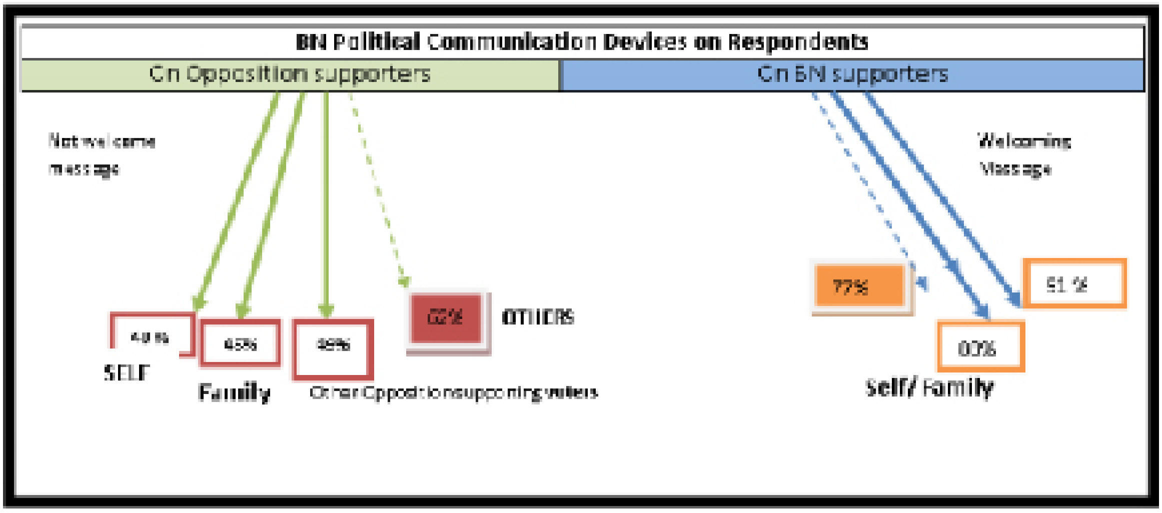

Figure 3. Third person effects on BN political communication devices (adopted from Andsagar, 2009)
Others
Self

Using Andsagar & White (2007) model to illustrate our finding, we assume that the BN political communication campaign is looked upon as an "undesirable" message by the opposition parties. Thus subsequently, the negative impact of the message will trigger a possible classic third person effect. The figure 3 on the opposition party respondents indicate a limited perceived influence on themselves (40%) as the "self' and a moderate perceived influence on the opposition party supporter's family (45%). This finding could be attributed to the fact that the respondents feel that they are on the same level of thinking as their close ones. However, the findings of the perceived influence on the others (62%) was greater compared to the perceived influence on self and family. This finding correlates with the classic third person effect theory where by the perceived influence on the distant others are higher than the perceived influence on self. Thus the opposition respondents feel that distant others are more influenced by the undesirable message than themselves. This finding is better understood by using the third-person effect model (figure 3).

CONCLUSION

The conclusion is formulated based on the findings of the study and testing the hypothesis. Though the main objective of the study was to explore the existence of a classic third-person effect in voter's opinion pertaining to the BN party controlled communication devices, the study has managed to indicate that there is some degree of influence by the BN political campaign materials on the BN supporters and a smaller influence on the opposition party supporters.

The distinguished acceptance of the BN respondents that the BN political communication devices have a positive influence on themselves, family and supporters have led the researcher to unearth the presence of a *confident* 'reverse' third person effect in the study. This theory has shed light on the importance of desirable messages or welcomed messages and the influence it can have on the respondents or others. The opposition party supporters on the other hand have depicted a classic third-person effect and agree to have some level of influence on themselves and others.

Furthermore the study has contributed to the media studies literature by studying the third-person effect and *reverse* third person effect within the context of election coverage. The study has further managed to establish a relationship between the third person effect and voter perceptions or the reverse third person effect and voter perceptions by using the third person effect model and reverse third person effect model. The study was based only on the impact of the BN political communication devices on Malaysian voters. However, it is predictable that the same kind of effects (third person, reverse third person effects or *confident* reverse third person effects) will be relevant on the study of the impact of the opposition political communication devices on BN supporters and opposition supporters.

Nevertheless, the unveiling of the *confident* reverse third person effect has enabled us to better understand the current political scenario of Malaysia and has given scope to broaden the stances in the future election studies.

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Marketing Mix Study: A Case Study of Lukjeab Thai Dessert Business in Petchaburi, Thailand

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Abstract

Thai dessert business has been major incomes for local people who live in Petchburi Province in Thailand. The aim of this research is to study the case of the Marketing Mix of "Lukjeab" Thai Dessert business in Petchaburi, Thailand. This research is a qualitative research applied in depth interview as a Purposive Sampling with the business owner to gain insightful information. The data collection used a recorder and observation notes to gather significant information from the field, and the interviewee. The result of the study found that the Lukjeab Thai dessert business adopted the Kotler's Marketing Mix method (1999) which included four substantial factors; product, price place and promotion to serve the needs of the consumers harmoniously and trade the maximum qualities of the products. Accordingly, Lukjeab Thai dessert is considered to be the distinctive dessert business in Petchburi.

Keywords: Marketing Mix 4Ps, Qualitative Research

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Introduction

On account of an agricultural country, the major foods and desserts in Thailand have been used agricultural products and natural ingredients for Thai cuisine. Likewise, a wide variety of desserts and sweets have been unitized the Thai local and natural products. Thai desserts or ***Kanom** (in Thai) have* been popular for Thais for many eras. Most of Thai desserts are sweetened based desserts which are comprised of flesh coconut, coconut cream and rice flour as core ingredients (Thongtago 2012 : 3)

Typically, homemade Thai desserts are usually made and served in a Thai household. The Cultural identity of Thai dessert is exquisitely presented in the unique processes and procedures of selecting natural ingredients, representing colorful and impressive appearances and tender tastes. Particularly in Petchaburi province, the Thai desserts marketing and distributions are major incomes of the local people. One of the most interesting dessert businesses in Petchaburi are the "Lukjeab Thai Dessert" where the unique and traditional desserts are produced.

Lukjeab Thai Dessert business is located at 29 /1, Boripat Street ThaMuang in Phetchaburi province in Thailand. The business has been started since 1985and the coconut products became the primary products of the business. The business carried on prosperously; therefore Lukjeab had an extension of business by opening the official shop in 1987. Lukjeab Thai Dessert business developed the packages and increasing of the own products such as Mung Bean Thai Custard Dessert Recipe (Khanom Maw Kaeng), black coconut sweet pudding, bean-paste, golden threads, Thai jelly with coconut cream and etc. in order to suit the needs of their customers (Tongsuwan,1997).

Theory

The research emphasized on the adopting Kotler's theory of the marketing mix into Lukjeab Thai Dessert business. The major significant factors of the marketing mix include Product, Price, Place and Promotion regarding as 4Ps (Kotler, 1999). The research was conducted in Petchaburi Province, Thailand and the data were collected from June 2013 to 30 September 2013.

The marketing mix (Marketing Mix) is a marketing tool that can be controllable and uncontrollable. The Company incorporated these tools to respond their needs and create satisfaction to target customers. Marketing mix consists of everything the company has used to influence the demand for the Company's products. Marketing mix is divided into four:"4 Ps" which include;

Product

The product, which is necessary and respond the needs of human beings. The seller must deliver to their customers and clients receive the benefits and value of the product. Generally, products are divided into two types of products that may be tangible and intangible products.

Price

(Price) refers to the monetary value of products in the customer to compare the value of the service price (Price) of the service. If the value is higher than the price the customer is make decision to purchase, so the pricing of services should be appropriate to the level of service clearly. It is easy to identify the different service levels.

Place- The distribution channel

Place is an environment -related activities in the proposed service to the customers which affect the customer's perception of the value and benefits of the services proposed that must be considered in the location and channels in the proposed service.

Promotion

The Promotion is one of the most important tools of communication through the customer. The purpose is to inform or persuade customer attitudes and behavior by using the key market relationships.

Methodology

This research is a qualitative research applied in depth interview as a Purposive Sampling with the business owner to gain insightful information. This research, the researchers have selected contributors -specific (Purposive Sampling) is the in-depth interviews directly between the researcher and business owners. Interviewee recorded information about the marketing mix use equipment while interviewing tape recorder notebook and camera for keep detailed of information.

The result

After studying the marketing mix, problems, strength and the weakness of Lukjeab Thai Dessert business in 121 Matawongroad ,Tharab sub district, Muang district, Petchaburi, Thailand

The result from research found that today, Lukjeab Thai Dessert shop satisfied the target customer needs by many different verities of dessert and combination of marketing mix. The result separated by using the marketing mix method:

Products of Lukjeab Thai Dessert shop offer many different verities and taste. The materials are always fresh because it is from Petchaburi. The main ingredients are Palmyra palm sugar which has good smell and taste than normal sugar, eggs which are collected every day, and fresh coconut especially, Khanom Mo Kang- It is a Thai famous dessert. There are also other Thai desserts such as Khanom Chan, KhanomBabin, Tong Yip, Tong Yot, Jackfruit bean, Foi Thong and etc. under the Lukjeab Thai Dessert brand. Lukjeab Thai Dessert has been also certified by Food and Drug Administration.

The prices are not expensive because the materials are from local Petchaburi province so, there is no price for transportation subtract with the production process and the safety stock plus the labor cost and the profit will be the selling price of each product. The target customers of Lukjeab Thai Dessert shop are between medium to high. This shop produces Thai dessert to satisfy the target customer in special event and occasion. The price is started from 150 baht to 1500 baht. If any customer is uncomfortable to come to buy at the shop, the shop offers the delivery but the price will be charged according to the distance, which the customers have to pay an extra. The place has been expanded the products supplied to many malls such as 7-eleven, Robinson and Siam Jusko in Bangkok. Promotion, most of promotions is used in malls. The Lukjeab Thai Dessert shop at the Petchaburi invites customers who want to study about Thai dessert or the production process and tourists to visit the shop, which are the best way to make direct market.

The problem

The problem is that the shop is not at the main road so it is difficult to go there. So, they solve this problem by built customer relationship; focus on the service and qualities. They also satisfy the target customer by using technology and social media such as Facebook, website board and etc.

Conclusion

The marketing mix of Lukjeab Thai Dessert shop was according to the theory of Phillip Kotler who states 4 factors of Marketing Mix, which can satisfy the customer, needs.

First factor is product, Lukjeab Thai Dessert shop has been found that dessert of Lukjeab Thai Dessert shop is different from other shops because the materials which have been used, have good quality. The ingredient are Palmyra palm sugar which has a good smell and taste more than normal sugar, eggs are collected every day, and fresh coconut. It also has been guarantee form Food and Drug Administration. Second, prices are not very expensive and satisfied the target customer needs. Place, the shop is at the Petchaburi but it is not at the main road so, it is difficult for customer to reach. We have solved this problem by delivering products and distribute product into different malls. The last factor is promotion, we have advertised and publicize through social media. Mostly, promotions are used at the malls.

Discussion

The research answered all the questions and gain profit in some level. Today we make mass production of Thai dessert. We gain profit from tourist, citizen, retailer, and the new customer from online media. Success key of Lukjeab Thai Dessert shop are the good working system, investment on marketing mix to know about the amount of production, goal of the production, and the increasing customer in each year. This business plan is assured by the online customer and Small Medium Enterprise. The possible way to improve the difficulties of the place is that Lukjeab Thai Dessert shop could provide advertising board or social networks. Lukjeab Thai Dessert shop concerns about the customer satisfaction, so the shop could give more opportunities for the customer by focusing on promotions in malls and their own shop.

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Ways of Life Under the Philosophy of Sufficiency Economy in Chang Hua Man Royal Initiative Project: A Case Study of Ban Nong Khok Kai Farmers, Tha Yang District, Petchburi, Thailand

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Abstract

This research aimed to study ways of life under the Philosophy of Sufficiency Economy in Chang Hua Man Royal Initiative Project: a case of Ban Nong Khok Kai farmers in Petchburi, Thailand who have followed the Philosophy of Sufficiency Economy including 5 aspects: mind, society, environmental resources, technology and economy to live their lives.

The semi structured in-depth interview was used to collect data. The research instruments were questionnaires and data analysis after the data interviewed among the Ban Nong Khok Kai farmers in Petchburi.

The results found that the farmers of Ban Nong Khok Kai lived their lives by relying on self-reliance principles of the Philosophy of Sufficiency Economy which were 5 aspects including mind, society, natural resources and environment, technology and economy resulting in quality life without burdening others and they lived happily following the Philosophy of sufficiency economy.

Keywords: Ways of life, Self-sufficiency principle, Sufficiency Economy, Farmers

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Introduction

Sufficiency Economy is the philosophy which had been initiated and guided by King Bhumibol Adulyadej in order to guide ways of life to Thai people before the economic crisis occurred in Thailand some time ago, and His Majesty the King later emphasized the survival and stable ways of life under globalization and changes. This philosophy has been followed for more than 30 years. According to Sufficiency Economy Principle, His Majesty the King once mentioned "Sufficiency Economy is the philosophy guiding how to live and behave in all levels of people: family, community or nation such as developing and managing the nation following the moderate practice, particularly in terms of economy in order to be able to handle with globalization (Office of National Economic and Social Development Board, 2013).

"Sufficiency**"** means moderation, reasonableness, and self-immunity for sufficient protection from impact arising from internal and external changes. To achieve this, an application of knowledge with consideration, prudence and carefulness is essential and needed for utilizing theories and methodologies for planning and implementing in every step. At the same time, it is essential to strengthen the morality of the nation so that everyone, particularly government officers, academicians, businessmen at all levels adhere the principles of honesty and integrity. In addition, a way of life based on patience, perseverance, diligence, wisdom and prudence is indispensable to create balance and ability to appropriately cope with critical challenges arising from extensive and rapid socioeconomic, environmental, and cultural changes in the world."(Knowledge Management, Rajamangala University of Technology Phra Nakhon, 2013)

Ways of life under the Self-reliance Principle of the Philosophy of Sufficiency Economy is how to live without troubles by relying on one own most by not least burdening others. The Philosophy of Sufficiency Economy is comprised of 5 aspects as follows.

1. Mind **-** the way of life related to developing and strengthening thoughts and minds to be strong, honest, generous and conscious to one and others.

2. Society **-** how to live as a group happily and rely on oneself by not burdening oneself or others as well as helping each other and setting mutual goals at importance.

3. Natural resources and Environment – applying and implementing limited natural resources most beneficially and effectively as well as preserving them

4. Technology – adopting technology and applying it with local knowledge to be applicable in daily life and utilizing technology to increase production efficiency and applying technology with local wisdom appropriately.

5. Economy – how to live with sufficiency and be satisfied with what one owns by adhering the moderate principle "be enough for living" according to the Sufficiency Economy Principle and by living happily and properly.

Chang Hua Man Royal Initiative Project is one of many projects following the Sufficient Economy Principle. This project provides economical plants of Tha Yang District, Petchburi Province. All local plants grown in the area are best selected and supervised by government sectors and local people in order to share ideas and knowledge to each other.

Objectives of the Study

To study ways of life under the Philosophy of Sufficiency Economy by 5 aspects: mind, society, natural resources and environment, technology and economy.

Methodologies

The details of study methodology are as follows:

1. Key Informants are Ban Nong Khok Kai farmers, Tha Yang District, Petchburi Province. Although the area is drought and only a few plants can be grown, the farmers live happily and know how to plant many plants effectively. This is the reason why the farmers at Ban Nonh Khok Kai were chosen as key informants.

2. The research tools were the semi – structured interview by asking about ways of life under the Philosophy of Sufficiency Economy by 5 aspects including mind, society, natural resources and environment, technology and economy.

Finding Results

Part 1 Information of Key Informants

Key informants were 10 farmers divided by age, marital status, annual income, career and number of family members. Most of the informants were 40 years old or older, married, have 3-4 family members. The annual income of was about 15,000-80,000 per year, and they mainly earned the income from pineapple farming while the part-time jobs were laboring, grocery selling and daily-paid working.

Part 2 Ways of life under the Self-sufficiency Principle of the Philosophy of Sufficiency Economy

1. Mind

Most of Nong Khok Kai farmers utilized the self-reliance principle in terms of mind to live their lives in order to get strong, conscious, generous mind for oneself and others. They followed the religious principles as their moral support. Those farmers expressed their opinions as follows:

1.1 Strong Mind – Many farmers were brave to deal with coming problems arising in the future. In the past, they had not been able to cope with problems, so they often fought with each other. When they had encountered with difficulties, they had not found ways to manage them which had caused mental illnesses. When Chang Hua Man Royal Initiative Project was initiated in the community, the farmers had good ideas due to the knowledge they received from the project, and they also applied the knowledge to live their lives. They were lively and were ready to handle with arising problems well. From the data, some farmers coincidently showed information regarding their strong minds as follows:

"After Chang Hua Man is located here, we are braver and stronger in terms of mind, and we are able to encounter with problems. Also, we have ideas and are ready to generate new things more and more" (Bussayamas, 2013)

"By following the Principle of Sufficiency Economy, we have better lives and are braver to deal with problems arising from the family or natural disasters." (Boontham, 2013)

Chang Hua Man Royal Initiative Project partly encouraged better lives of farmers because they had knowledge of the Sufficiency Economy Principle resulting in quality lives which they knew how to rely on themselves as well as which encouraged them to be stronger and to correctly solve the problems.

1.2 Good Consciousness and Generosity – Chang Hua Man Royal Initiative Project changed ways of life of Ban Nong Khok Kai a lot as all farmers had an opportunity to gain knowledge from the project site and applied what they had learned in their daily lives resulting in good consciousness such as sharing, being considered to others, being responsible for one's duty. The farmers knew how to live under the Self-reliance Principle in terms of mind more. Many farmers had good consciousness and generosity and avoided jealousy; they were not too stressed with work. From what mentioned, the informants coincidently showed the information as follows:

"In the past, my mental status was not like this. People fought with each other. There was noise pollution, but now things are good as people are considered to each others." (Boontham, 2013)

From the interview, it was concluded that the farmers had good consciousness and generosity such as sharing and being considered to others. They knew that they should work with good attempt.

1.3 Honesty – Most farmers were honest, and there was no stealing in the community. Before the project, there had been stealing and drugs. People lived peacefully and more happily. They could even leave their places with doors opened without worrying about thieves. The informants coincidently showed the information as follows:

"Before stealing occurred often, but now even the house door is opened, there is no stealing at all. Since people has been participating with the project, the quality of life is better and no more stealing issues." (Chai, 2013)

"In the past, stealing and drug issues were often found, but after the Sufficiency Economy, now no more issues. People do and think positive." (Bussayamas, 2013)

Chang Hua Man Royal Initiative Project partially encouraged people to live peacefully and positively. Problems in the community were lessen after people learned the Philosophy of Sufficiency Economy and applied in their lives, so they were honest and considered to others.

1.4 Ways of Life under Moral Principles and Ethics – From the interview, many farmers followed the ways of life under moral principles and ethics as their religious support. The Philosophy of Sufficiency Economy guided people not to get involved with bad things but managing with stress by adhering transparency and virtue instead. The informants coincidently showed the information as follows:

"Think about causes of stress. Find solutions for stress of mine on my own. Avoid problems by using religious principles which work well." (Narin, 2013)

"Whenever I am in trouble, I go to a temple to listen to sermon, and I go practicing the dharma at religious events." (Boontham, 2013)

Many farmers were stressed and in trouble due to different causes, but the principle of solving those problems was using the religious principles and practicing the dharma at a temple which were considered as solutions under the self-reliance principle which they could appropriately solve their own problems.

2. Society

The farmers followed the self-reliance principle in terms of society to live their lives in order to live with others happily and help each other properly. They helped publicizing news and spreading information among the farmers. They also got involved with mutual events and projects readily as the information below.

2.1 Helping Each Other – The farmers helped each other when their peers were in trouble or when helps were needed. They helped each other readily without expecting things in return. The information was coincidently received below.

"I gladly help others at the wedding or the funeral." (Bussayamas, 2013).

"At festivals or events, I always help them." (Boontham, 2013).

Most farmers helped each others at mutual festivals or events readily without asking for things in return. This was because their good mind due to following the Philosophy of Sufficiency Economy.

2.2 Knowledge Publicizing – The knowledge and experience were shared and publicized among the farmers. More and more speakers were invited. The following information was coincidently received.

"Some outsiders come in and help publicizing, and we also learn from each other." (Bussayamas, 2013)

"Community broadcasting announcements help." (Chai, 2013)

The farmers know how to publicize information among the community and open for the outsiders' knowledge, so the farmers are educated as well as able to educate others.

2.3 Responsibility in Community Work – The farmers have mutual responsibility for community work by working without expecting things in return. Living under the self-reliance principle in terms of society led to good consciousness and responsibility of people. The following information was coincidently provided.

"We help each other during the mutual community work such as road works without caring about social titles or careers. This is because of good consciousness and responsibility of us as community members." (Bussayamas, 2013)

"It is because of our consciousness and responsibility towards the community." (Chai, 2013)

Most farmers understood their roles and responsibilities in the community, and they did their best without disputing things. This showed how much they paid attention to the community.

3. Natural Resources and Environment

The farmers followed the self-reliance principle in terms of natural resources and environment to live their lives by applying and implementing limited resources most efficiently as well as preserving them. The informants coincidently showed the information as follows:

3.1 Optimizing the Natural Resources and Environment **-** The farmers optimized the natural resources and environment they had such as land managing for farming. The Philosophy of Sufficiency Economy partially guided the farmers to do the sufficient farming more. The following information was coincidently provided.

"The pineapples are returned because they are too small. Then the fruits are processed in order to not lose the resources." (Chai, 2013)

"We have backyard gardening plants, and the rain water is used for watering the plants." (Bussaysmas, 2013)

"Grass and hay are used in manure." (Boontham. 2013)

The farmers utilized and optimized what they had most effectively and efficiently and they earned the income from it by not wasting it by following the Philosophy of Sufficiency Economy.

3.2 Preserving the Natural Resources and Environment – People in community cooperated well in order to cope with the limited natural resources and environment. Saving and preserving the natural resources and environment projects were conducted. The following information was coincidently provided.

"We need cooperation from multiple sectors in preserving the natural resources and environment by stimulating consciousness among people in the community – young and old. This will be beneficial." (Chai, 2013)

"Before there was waste burning a lot, but it has been reduced. Rice Hay will be used in manure saving costs. Private vehicles are used less. Also, we don't disturb the nature." (Bussayamas, 2013)

The farmers participated in the encouraging natural resources and environment consciousness campaigns. They corporately saved and preserved the resources and environment and avoided harming the nature by burning the waste and the farm.

4. Technology

The farmers brought technology into developing local wisdom and applying technology in daily lives. Also, technology was used to increase the productivity competency. The following information was coincidently provided. The following information was coincidently provided.

4.1 Choosing Necessary Technology – The farmers that technology was important as it helped communicating and public relation activities. They thought technology made their lives comfortable and convenient. The following information was coincidently provided.

"Technology is very important such as mobile phones as everyone has one to contact each other, but we have to choose ones appropriate for our status." (Chai, 2013)

"A mobile phone is necessary as it is easy to contact each other while a TV set is how we get information." (Bussayamas, 2013)

The farmers chose the necessary technology equipments by considering the advantages the most which were connecting, information receiving and fast communicating. The Philosophy of Sufficiency Economy assisted people in learning the real importance and necessity of technology.

4.2 Applying Technology in Local Wisdom and Daily Life – Most farmers in the area applied technology with the local wisdom appropriately by adjusting technology into production and using engines in farming. The following information was coincidently provided.

"Bigger transports are used to load products and farm rather than some small vehicles." (Chai, 2013)

"Pineapple chopping machines are used, so we can save energy from using our hands." (Bussayamas, 2013)

Most farmers applied technology with the local wisdom appropriately; therefore, high returns and more products were gained and the farmers had more comfortable and convenient lives. Also, technology was used to develop community business well.

5. Economy

The informants followed the Sufficiency Economy Principle by having simple and sufficient lives with self-esteem and by following the moderate principle "be enough for living" according to the Sufficiency Economy Principle and by living happily and properly. The following information was coincidently provided.

5.1 Reducing Expenses – Many farmers spent money economically, thought before spending and reduce unnecessary expenses, so the family cash flow was good. The following information was coincidently provided.

"We must be saving, and we have to think before spending. Also, spending is considered by considering by priority. This helps us to save up money a lot." (Chai, 2013)

“At first, we bought every consuming item, but after the Sufficiency Economy, we have saved a lot more and had more saving money. Less electricity and water supply using as well as less spending on clothes.” (Bussayamas, 2013)

The farmers were economic, spent less money on unnecessary expenses by thinking before spending. Finally, the cash flow was good and the farmers know how to live appropriately.

5.2 Increasing Income – Many farmers knew how to allocate money appropriately by considering individual condition and family condition. Especially, during the dull economic condition, reducing expenses and increasing income are considered important. Under the Philosophy of Sufficiency Economy, the farmers knew how to increase sources of income. The following information was coincidently provided.

“My main duty is earning money from first and second jobs. My second job is as a construction labor.” (Boontham, 2013)

“I do have part-time jobs: a construction labor earning 300-400 THB a day. ”(Chai, 2013)

Increasing income meant having part-time jobs. Apart from pineapple farming, some farmers earned more money from their part-time jobs as a construction labor whenever they had time while waiting for harvesting. The farmers were found to spend their time usefully and simply. They believed this was enough for them without thinking about going away from home and getting more money.

5.3 Saving and Investing – Many farmers considered how important the expenses and necessary for family members were before spending money on those particular expenses. They saved money for investing by having life plans. The following information was coincidently provided.

“50 THB is deposited to the community fund providing the interests once a year. In case of money shortage, people can ask for the loan with the 0.03% interest per month.” (Bussayamas, 2013)

“I am a collector of the community, so it makes me feel I have to be saving too.” (Narin, 2013)

The savings could guarantee the future of the farmers as all savers would get the profits from the savings monthly. The Philosophy of Sufficiency Economy led the farmers to be saving and know how to manage their futures.

5.4 Adjusting Oneself to Community Business – Many farmers had to adjust themselves into the business in the community which people had the same walks of life. In the area, most people did pine apple farming as there was not much water and the pineapple was an economic plant. The following information was coincidently provided.

“Most people raise animals for meat in their places as they don’t have much land. I also raised chickens and pigs also.” (Boontham, 2013)

“Our area is dry and lacks of water, so we do pineapple farming not rice farming.” (Chai, 2013)

The land in Petchburi was mainly drought which was not appropriate for farming any plants needing water. Therefore, most farmers did pineapple and sugarcane farming because these two plants could endure the drought well and provided high productivity. However, once a year the pineapple could be planted. The farmers had to raise animals for meat and grow vegetables foe eating in order to save up.

Discussion

From the study, it results showed most farmers following the Philosophy of Sufficiency Economy in Chang Hua Man Royal Initiative Project lived their lives by relying on self-reliance.

In terms of mind, most farmers had strong minds and were lively almost all the times. This might be because they learned from the Philosophy of Sufficiency Economy and employed what they learned in their daily lives without burdening others. Also, they had consciousness and generosity, sharing and having good mind sets. As mentioned, they were ready to encounter with arising problems. Although there was chaos in Thai society, Ban Nong Khok Kai people were strong and brave enough. Therefore, the study indicated that the project had an impact on the farmers’ lives in terms of self-reliance during the uncomfortable society.

In terms of society, gathering as a group was an important thing in Thai society. Most Thai people lived in big families with large supports as well as people in Ban Nong Khok Kai who were readily willing to help each other. From the study, Ban Nong Khok Kai people participated in all events and community works without expecting things in return. This might be because the Philosophy of Sufficiency Economy led them have mutual responsibility and sacrifice. Also, the farmers were willing to share their knowledge and experience with others in order to develop the community.

In terms of natural resources and environment, Ban Nong Khok Kai people mostly utilized and optimized the natural resources and environment in the area in their daily lives effectively and efficiently as well as maintained and preserved them. From the study, it was found that people in the area participated in the campaigns encouraging people to save the resources in order to deal with limited and finished resources in the future. Seniors in the community also played an important role in teaching young people not to harm and destroy the natural resources and environment by not burning the forest and the waste.

In terms of technology, although technology was considered as an important thing when it came to communication, transportation, comfort and convenience, people had to choose and use it correctly and appropriately. The farmers in Ban Nong Khok Kai area used technology due to its necessity in terms of communicating and publicizing. Technology was applied with local wisdoms appropriately. From the study, the pineapple chopping machine increased productivity and quality. What led the farmers to use technology appropriately might be because of understanding the Philosophy of Sufficiency Economy.

In terms of economy, money was very important in living. The better the economy was, the better the life became. Therefore, saving was very important thing during the unpredictable economy condition. Ban Nong Khok Kai farmers emphasized on reducing unnecessary spending and spending correctly and appropriately, considering necessity and priority of payment. To increase income, the farmers had part-time jobs before the harvesting season. Besides, they knew how to allocate money, invest and save money as they knew the saving balance could guarantee their future. This might be because they applied the Philosophy of Sufficiency Economy in their lives, so they thought about saving and earning.

Implications of the Study

Theoretical implication and Recommendations for Further Studies

This study employed the Philosophy of Sufficiency Economy developed into the ways of life of people in the community by 5 areas: mind, society, natural resources and environment, technology and economy. The recommendations for the further studies are as follows:

1. The study should be conducted by applying quantitative research methodologies.
2. Factors initiating ways of life under the Self-reliance Principle following the philosophy of Sufficiency Economy should be studied.
3. Different informants such as students and non-farmers should be studied.

Policy implication

1. The leaders and related sectors should provide chances for people in the community to participate in the trainings, meeting, study trips, seminars activities regarding the Philosophy of Sufficiency Economy in order to have knowledge and understanding about correct ways of life under the philosophy.
2. Local administrative units and related sectors should pay attention to the importance of practical ways of the philosophy which should be seriously and practically encouraged among people as this will support them to rely on them effectively.

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Relationships Among Perceived Self-efficacy, Family Support and Health-promoting Behaviors of Older People with Hypertension in Thailand

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Abstract

The objective of this study was to examine perceived self-efficacy, family support and health-promoting behaviors among older people with hypertension and the relationship among them. This study was a descriptive design. The instruments used in this study were a demographic data form, the health-promoting behaviors questionnaire, the perceived social support from family scale, and the perceived self-efficacy. Data were analyzed using percentage, means, standard deviations, and the Pearson's correlation moment coefficient. The results revealed that the mean of health-promoting behaviors among the participants was at a good level ($\overline{X}$=3.09, SD=0.36). Education, family income, perceived social support from family, and perceived self-efficacy had positive associations with health-promoting behaviors.

The strongest positive correlation with health-promoting behaviors was perceived self-efficacy ($r=.59$, $p<.01$), followed by perceived social support from family, education and family income ($r=.38$, $p<.01$; $r=.30$, $p<.01$; $r=.22$, $p<.05$, respectively). The findings suggest that family could be a major source of support for older people to promote and empower them in maintaining health-promoting behaviors.

Keywords: family support, health-promoting behavior, self- efficacy

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Introduction

Hypertension is a global public health issue. Most people with hypertension, however, have no presenting symptoms. Many patients with hypertension are unaware they have the disease because patients have only mild symptoms such as headaches and dizziness upon respiration. Long-term hypertension results in complications. Hypertension is a chronic disease, which requires long-term self-care, management, and continual pharmacotherapy, which certainly affects the patients' standard of living and raises healthcare costs. Hypertension is a high cause of death for approximately 8 million of the adult population worldwide and nearly 1.5 million people each year in the South East Asia Region (WHO, 2011). Hypertension is highly prevalent in the elderly. High blood pressure values in the presence of several risk factors such as obesity, diabetes mellitus, increased salt intake, hyperlipidemia, smoking, lack of physical activity, psychological factors, advanced age and sex lead to a further increase of cardiovascular disease risk. (Babatsikou & Zavitsanou, 2010; Thai hypertension Society, 2012).

Awareness of the importance of prevention and blood pressure control is aimed at minimizing the impact of the disease in terms of the etiologies of other chronic diseases and mortality. Hypertension control can prevent stroke (Kelly-Hayes, 2010). Moreover, health care guidelines for patients with hypertension by Health Lifestyle Modification are capable of helping enable effective treatment for hypertension in which every patient with hypertension is advised to reduce risk factors (Thai hypertension Society, 2012; Rigsby, 2011). Reducing blood pressure has the effect of enabling cessation or reduction in the use of blood pressure medications. The aforementioned methods are composed of the following: (1) Behavior modification through a dietary approach to stopping hypertension, or what is called the DASH diet, by increasing fruit and vegetable intake with larger portions that other types of foods, reducing the amount fatty foods. Saturated fats, in particular, are effective in reducing systolic blood pressure 8 -14 mmHg while limiting sodium intake to less than 100 mg/day or 6 grams of sodium chloride, is effective in reducing systolic blood pressure 2-8 mmHg. Weight control and weight loss with a body mass index (BMI) equal to 18.5 -23 is effective in reducing systolic blood pressure 5-20 mmHg per ten kilograms of weight. Reducing alcohol intake by limiting alcoholic beverages and quitting smoking are also helpful; (2) Suitable exercise should be performed such as aerobic for at least thirty minutes. Furthermore, exercise should be performed on a continual basis in order to ensure exercise effectiveness in reducing systolic blood pressure 4-9 mmHg; (3) Stress management – Stress is a normal phenomenon that can be encountered every day. If stress occurs as a result of fear or anxiety, the aforementioned stress will have effects on the body such as high blood pressure and heart palpitations. With regard to stress management, the older people with hypertension have to face with both physical and role function-related challenges in their lives. These challenges cause stresses which affect both health and well being, particularly affecting coronary artery function because the sympathetic system directly affects blood pressure levels. Efficient stress management, relaxation and expressing appropriate emotions will, therefore, decrease blood pressure

According to the Health Promotion Model (HPM) (Pender, 1996), the success of motivating individuals to maintain and enhance health-promoting behaviors depends on numerous factors such as personal biological, psychological and sociocultural factors. Personal Factors directly influence ways of thinking and attitudes about certain behaviors. Perceived self-efficacy is one of the variables in Behavior-Specific Cognition that affects the HPM and is considered the major motivation for performing health behaviors. According to Bandura(1997), perceived self-efficacy can motivate behavioral changes because it prompts initial decisions to activate desired behaviors. Social environments are known to affect health-promoting practices in older patients and include the family support. Families are an important resource in the care of patients, especially in the group of elderly patients who require care from family members. Hence, families require understanding about the nature of changes taking place with elderly family members and awareness that old age enables families to act properly in the care of elderly members. Physical changes in the elderly occur gradually and are the result of the degeneration of various physiological systems in the body. Families, therefore, should promote elderly family members in retaining physical capacity in four vital areas, namely, 1) Dietary care; 2) Exercise or physical activity; 3) Stress and Anxiety management and finally 4) Prevention of accidents and potential hazards occurring with older people family members. However, the older people have specific health problems such as chronic diseases or disabilities, these older people require special care. Care and health promotion for the elderly and their families play increasingly important roles and the satisfaction of patients in life is positively correlated with familial support (Kim & Sok, 2012). The value of the family is highly significant toward health status wherein some studies have indicated that strong family and social support has a positive impact on self-management behaviors an self-care practices in diabetic, breast cancer, and COPD patients (Wen, Shepherd & Parchman, 2004)

In order to promote proper health-promoting behaviors in older hypertensive patients, both patients and their families must significantly participate and co-ordinate to achieve the treatment goal and maintain health to delay unsatisfactory complications and improve the quality of living. This study determined the influence of perceived self-efficacy, family support, and personal factors on health-promoting behaviors among older people with hypertension, the findings of which could be of benefit to nurses in understanding the needs of older people and perceiving family environment in designing interventions to enhance cognitive variables and have an impact on health-promoting behaviors.

Purposes of the Study

1. To investigate the level of health-promotion behaviors of older people with hypertension.
2. To examine the relationships among perceived self-efficacy, family support and health-promoting behaviors among older people with hypertension.

Research Hypothesis

Perceived social support from family, and perceived self-efficacy have correlation with the health-promoting behaviors of older people with hypertension.

Methodology

This study was used descriptive cross sectional correlational design. The samples were older people with hypertension at hypertension clinic in a hospital, Suphanburi province.

The inclusion criteria were as follows:

1. Aged of 60 years or above.
2. Understand Thai language. No problems with hearing and speaking.
3. Living with family members.
4. Physician's diagnosis with hypertension and non-complications such as kidney disease, diabetes mellitus, or coronary disease.

The sample sizes were determined by using power analysis, which is a method for reducing the risk of Type II errors (wrongly accepting false null hypotheses) and for estimating their occurrence. For the conventional criteria of a moderate effect size, power of .80 and a level of .05 were used; therefore, the minimum numbers of the samples in this study were 84. Hence, the final sample consisted of 100 older people.

Structured questionnaires were used for the interviews which consisted of four parts.

Part 1: Demographic Data Form

The demographic data form was used to collect data such as age, gender, marital status, educational background, occupation, number of family members, family income and illness duration.

Part 2: Health-Promoting Behavior questionnaire

Health-Promoting Behavior questionnaire developed by researcher within the framework of the HPM. This measure was used to determine the frequency of health-enhancing activities. There were 28 items in this questionnaire in which the respondents were asked to rate frequency of health-promoting behaviors in the domains of nutrition, physical activity, and stress management on a 4 point scale. The interpretations of the average scores are identified as follows: poor level (scores 1.00-1.50), fair level (scores 1.51-2.50), good level (scores 2.51-3.50) and Excellent level (scores 3.51-4.00)

Part 3: Modified Perceived Social Support From Family (MPSS-Fa) Scale

The Modified Perceived Social Support From Family Scale developed by Zhang (1999) was used in this study. The original questionnaire consists of 15 items measuring the intent to which an individual believes in needs for moral support, emotional support, intimacy and the need for information and feedback from family members. In order to cover all aspects of family in the Thai context, the researcher deleted one item and added 4 items about financial and material support received from family members. Interpretation of the average score is as follows: the older people with hypertension perceived the contribution of family support toward health-promoting behavior as low (scores 1.00-2.50), moderate (scores 2.51-3.00) and high (scores 3.00-4.00).

Part 4: Perceived self-efficacy questionnaire

This questionnaire contains 25 items measuring the individual's belief about his/her abilities to perform health-promoting behaviors.

Scoring was obtained by calculating a mean of the overall scale scores and their subscale score. The interpretations of the average scores are as follows: Poorly perceived self-efficacy (scores 1.00-2.00), moderately perceived self-efficacy (scores 2.01-3.00), highly perceived self-efficacy (scores 3.01-4.00)

Validity and reliability

The instruments were initially tested for the content validity by five experts. These experts included one medical doctor who specialized in hypertension and four nursing instructors with experience in using Pender's Health Promotion Model. Suggestions from the five experts were incorporated into the final revision of the questionnaires.

The finalized questionnaires were tried out with 30 older people with hypertension. The instruments were evaluated for their reliabilities using Cronbach's Alpha coefficient analysis. The results indicate the following:

Health-promoting behaviors Questionnaire	= 0.79
Modified Perceived Social Support From Family (MPSS-Fa) Scale	= 0.92
Perceived Self-efficacy Questionnaire	= 0.84

Protection of Human Subjects

The researcher protected the rights of the subjects by providing detailed information about the study and their rights to either accept or refuse to participate in the study. The subjects were allowed to withdraw or cancel their participation at any time and informed that their refusal or withdrawal from the study would not have any consequences that might affect either them or their families. The subjects were also assured that all data obtained would be kept confidential and no identification of each individual subject would be presented as both samples and obtained data would be shown as an overall picture only. Once the subjects had expressed willingness to participate in the study, they were asked to sign the consent form. This study received documentary proof of ethical clearance from the committee on Human Rights Related to Human Experimentation, Boromaraijonani college of Nursing Suphanburi.

Data Analysis

Demographic data were analyzed by frequency and percentage. The means and standard deviations of education, income, perceived self-efficacy, perceived social support from family, and health-promoting behavior were calculated, after which Pearson's correlation moment was performed to determine the relationship health-promoting behaviors.

Results

Part I: Characteristics of the samples

The participants consisted of more females (51%) than males (48%) and the average age of the participants was 68 years of age (SD=6.94), with a range of 60 to 88 years of age wherein the majority of the participants ranged in the age from 60 to 65 years of age (37%). Most of older samples were married (68%), had primary school educations (78%), and no occupation (62%).

Forty-one percent of the older participants lived with their spouses and children. Also forty-one lived only with their children. Thirty-one percent of the participants reported 2 family members resided in their family and 23% of them had 4 family members with a mean of 4.05 (SD=2.01). The range of hypertension diagnosis duration was 1-25 years with a mean of 6.46(SD=4.65).

Part II Description of main variables

Table 1.
Means, standard deviations, and ranges for health-promoting behaviors, perceived social support from family and perceived self-efficiency (N=100)

Variable	$\bar{x}$	SD	Interpretation of score
Health-Promoting Behaviors	3.09	0.36	Good
- Nutrition	3.30	0.36	Good
- Physical Activity	2.73	0.73	Good
- Stress management	3.21	0.44	Good
Perceived social support from family	3.40	0.48	High
Perceived self-efficiency	3.42	0.37	High
- Nutrition	3.54	0.37	High
- Physical Activity	3.26	0.61	High
- Stress management	3.51	0.48	High

Table 1 showed that the mean score of the total health-promoting behaviors of older people with hypertension was at a good level ($\bar{x}$=3.09, SD=0.36) wherein eighty-two percent of the participants had health-promoting behaviors at a good level, thirteen percent were at a very good level and five percent were at a fair level. The highest mean score was in the nutrition dimension ($\bar{x}$=3.3, SD=0.56) while the overall mean score of perceived social support from family was at a high level ($\bar{x}$=3.4, SD=0.48).

The mean score of Perceived social support from family was at a high level ($\bar{x}$=3.40, SD = 0.48). The total mean score of perceived self-efficacy was also at a high level ($\bar{x}$=3.42, SD=0.37) and the highest mean was in the subscale of nutrition ($\bar{x}$=3.54, SD=0.369).

Part III The relationship contributions of gender, education, family income, perceived social support from family, and perceived self-efficacy toward health-promoting behaviors in older people with hypertension.

Table 2.
The correlation coefficient among independent variables and dependent variables (n=100).

Variable	1	2	3	5	6
1.Gender					
2.Education	-.307				
3.Family income	-.254	.324			
4. Perceived social support from family	.108	.169	.229		
5.Perceived self-efficacy	-.317	.284	.367	.297	
6.Health-promoting behavior	-.109	.299**	.222*	.381**	.592**

**p<.05 **p <.01*

The results of the analysis are presented in Table 2, which shows that education, family income, perceived social support from family and perceived self-efficacy had positive relationships with health-promoting behaviors. The strongest positive relationship with health-promoting behaviors was perceived self-efficacy (r=.59, p<.01), followed by perceived social support from family, education and family income (r=.38, p< .01; r =.30, p<.01; r=.22, p<.05).

Discussion and Conclusion

The findings are discussed in this study according to objectives and hypotheses of the study, as presented below.

1. The mean score of the overall health-promoting behaviors was in good level. In addition, mean scores of nutrition and stress management subscales were high and at good level. Although physical activity subscale was reported at a good level, it had the lowest mean score, indicating that the samples in this study were less likely to engage in physical activity. The older participants reported high performance on nutrition and stress management and low performance on physical activity. These activities are congruent with reports of better performance on nutrition and stress management in older people living in rural areas (Purananoon, Narapong, & Kreggultron, 2006). However, low engagement of older in exercise was reported in all studies. This indicates a need to develop an appropriate exercise program for older to enhance their physical activities.

The older samples in this study so they tended to be more responsible for maintaining good health behaviors, especially more nutrition conscious. Illness may be an incentive to increase efforts toward a sense of well-being. They may have good attitude toward health and are aware of being responsible for one's own health which they acquired during their illness experiences with hypertension. The majority of the samples in the young-old age group (60-65 years old) with the mean age of 68. They reported quite high levels of healthy behaviors in comparing with other studies. For example, in a nutritional subscale, they rated high in the item "avoid drinking alcohol such as bear", and the item "avoid eating snack". In stress management subscale, they also reported high frequency in the item "problem solving without additive stances such as cigarette smoking or drinking alcohol". Use other alternatives for problem solving such as doing meditation, watching television, listening to music or discussing with others were another positive lifestyle behavior for older people to help them relax and manage their conditions with stress.

The older participants showed a good level of engaging in physical activity. They reported high frequency of lifestyle behavior in the item "spending their times doing much energy activities; such as house keeping, gardening or planting". The least frequency behavior was "cool down at least 5 minute for muscle relaxation after the physical activity". The older people may not be familiar with formal exercise pattern. They perceived that physical activity is any activities in daily living contributing to sweat or energy consumption such as slow walking or doing a chore. They, therefore, may not know how to do relax their muscle. For the older people, it is imperative to support the idea of slow walking because it appears to be an effective to promote this type of exercise into their daily living.

2. The relationships among personal factors (gender, education level, family income, perceived social support from family, and perceived self-efficacy) and health- promoting behaviors of older people with hypertension.

Gender did not relate with health-promoting behaviors. The male and female older people experienced both physical and role dysfunction-related to their lives. The result is consistent with Ngawsomsakul (2000) which found that gender had no relationship with exercise behaviors in cardiovascular disease patients.

Education had a significant positive association with health-promoting behaviors ($r=.299, p<.01$), indicating the importance of education in engaging in health-promoting behaviors. This variable has been supported by previous studies in which persons with more education had higher healthy lifestyles (Purananoon, Narapong, Kreggultron, 2006).

Family income also had a weak significant positive correlation to health-promoting behaviors ($r=.222$, $p<.05$). The finding is congruent with the study of Nies & Kershaw (2002) which found that income was correlated with health behaviors and physical activity. Thirty-six percent of the samples in this study reported family income range between 3,000-6,000 Baht per month (1US$=35 bath). Most of them received financial support from their children.

This study showed that the older people with hypertension reported high level of both perceived social support from family and perceived self- efficacy. In addition, the more positive relationships among perceived social support from family and perceived self- efficacy indicate the higher health promoting behaviors. Living with others provides the older people with environmental resources facilitating them to engage in health-promoting behaviors. Most of the family members living with the older people were spouses and children with the average of 4 members in the family. In the context Thai culture, family members usually provide support to their older parents. Family is the opened system associated with various subsystems including spouse system, parents system, children, and kinsfolk and relative system. Family functions is important for the family lifestyle in term of support and prohibit some behaviors. Elders living at home were found to incorporate help from family members comfortably into their lives. They viewed themselves as autonomous and able to maintain balance between autonomy and dependence on loved ones (Crist, 2005). The older people living with their family were better than the living alone in perceived health status, self-esteem, depression and life satisfaction (Shin,2012) and the older people living with family members reported the better level health-promoting behaviors than the one who live alone (Sok &Yun,2011). Higher self-efficacy were significantly associated with higher performance of health-promoting behaviors. This finding is consistent with the study of Wen, Shepherd & Parchman (2004) reporting that perceived family support and perceived self-efficacy were significant predictors of both diet and exercise self-care.

Implications and Recommendations

1. The nurses should be aware of the physical changes in the older people while physical exercises such as walking, yoga and tai chi should be advised according to individual needs.
2. Families were reported by the subjects as the most available supportive resources. This finding can remind nurses working with older to pay more attention to family members as participants in patient care as family members are taught appropriate ways to provide support to the older people and realize their importance in order to continually engage in health-promoting behaviors.
3. The study can be used as a database for further research. Furthermore, a nursing intervention for improving family support and self-efficacy should be explored.
4. This study should be conducted in community settings with different characteristics for target population or other chronic diseases including diabetes mellitus, cerebrovascular disease, heart disease and patients requiring long-term healthcare and self-management.

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The Study of Attractive Factors on Buying Various Type of Life Insurance Programs

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Abstract

Life insurances nowadays are seen as products to sell, however, it is not hard to make decision to buy them; moreover, there are varieties of life insurances program. So, what factors for deciding whether to buy life insurance program or not seem to be challenge question for insurance company. So that this paper studies associated factors to choose life insurance program of people who live in the capital city of Thailand, Bangkok by using questionnaire to collect the data from various area of Bangkok. Sampling of 449 was analyzed by using descriptive statistics and Chi-square test to find the relationship between associated factors and life insurance programs.

The result shown that people in sampling decided to buy life insurance programs because of three following factors; the require of stability and safety, the benefit payment, and the trust of insurance system. All factors have relationship with deciding on the type of bought insurance programs at 95% significant level. Most people decision to buy endowment life insurance program, subordinate is whole life insurance program.

From the hypothesis testing, shown that gender, age, marital status, number of the family members, level of education, and income have no relationship to purchase the life insurance program except occupation. The recommendation from this study is that the insurance company could improve their product of life insurance programs to fit with people needed. Moreover, terms and condition of insurance benefit should be attractive to the choosing in the insurance program.

Keywords: Life insurance program.

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Introduction

Insurance of the country's population as growth rate indicators, or the development of the country. Thailand are currently the very few people who are interested in making health insurance more seriously. Insurance program products are still being sold for more than the product they want to buy.

Therefore, there is a question what are the attractive factors that affect the decision to purchase life insurance and what are the program of life insurance that people decision to purchase.

According to the theoretical considerations on factors that influence life insurance demand as well as the results of empirical studies, income is the most influential determinant (Beck & Webb, 2003; Li et al., 2007), price and development of financial system. And the purchase of life insurance is one of the most important purchasing decisions for individuals and families (Anderson & Nevin, 1975) and it is a critical component of a long-term financial plan (Devaney & Keaton, 1994).

The aim of this paper is to analyze attractive factors on buying various type of life insurance programs of people who live in the capital city of Thailand. The next section provides literature review structured according to factors on decision buying life insurance program. The methodology is described in Section 3. Section 4 presents and discusses result. The main conclusions are given in Section 5.

Literature Review

Marijana C, Ivanv D. and Sandra P. (2013) The results of the research have implications on decision makers on both macroeconomic and insurance companies' level. In other to encourage life insurance demand macroeconomic decision makers should provide policies that ensure employment and encourage education. The research result shows that age, education and employment impact life insurance demand of household in Croatia while gender, marital status and number of family members do not have statistically significant influence.

Negi D. & Singh P. (2012) To find out the relationship of demographic characteristics of the respondents with five important factors influencing the purchase of a life insurance product namely product quality and brand image, service quality, customer friendliness, brand loyalty and commitment. Product Quality and Brand Image came out as the highest ranking factors while Brand Loyalty has been rated as the least important factor. It has been further observed that these factors vary significantly across various demographic characteristics of the respondents.

Mahdzan N. & Victorian S (2013) the determinants of life insurance demand among life insurance policyholders of five major life insurance companies in Kuala Lumpur, Malaysia. The relationship between financial literacy and saving motives (precautionary, bequest, life cycle and wealth accumulation motives) with life insurance demand was then analyzed using a multiple regression. Results revealed that demographic variables and saving motives were significantly related to life insurance demand. Financial literacy, however, was found to be insignificant in determining life insurance demand.

Data and Methodology

The analysis is based on the survey data collected through questionnaires. There were 449 questionnaires and all of them were found fit. Data collection period take from 9 September 2013 until 15 September 2013, for a period of one week. The sample consisted of both individuals who buy life insurance and those who do not buy. The questionnaire created for the purpose of the analysis consists of questions focus on types of ordinary life insurance program that the people to purchase and the factors affecting the selection to purchase the life insurance.

DATA

<u>3.1 Types of ordinary life insurance program consist of 5 programs:</u>

1. <u>Endowment life insurance program</u>, that is contract designed to pay a lump sum after a specified term (on its 'maturity) or on death. Typical maturities are ten, fifteen or twenty years up to a certain age limit. Some policies also pay out in the case of critical illness.
2. <u>Whole life insurance program</u>, that is a life insurance policy that remains in force for the insured's *whole life* and requires (in most cases) premiums to be paid every year into the policy.
3. <u>Term life insurance program</u>, which provides coverage at a fixed rate of payments for

a limited period of time, the relevant term. After that period expires, coverage at the previous rate of premiums is no longer guaranteed and the client must either forgo coverage or potentially obtain further coverage with different payments or conditions. If the insured dies during the term, the death benefit will be paid to the beneficiary.

4. Annuity life insurance program, that is a predetermined periodic payout amount until the death of the annuitant. These product are most frequently used to help retirees budget their money after retirement that pays into the annuity on periodic basis when people are still working.
5. Other programs.

3.2 Questions of factors affecting the selection to purchase the life insurance from:

1. Does the people require of stability and security for themselves and their families when purchase life insurance?
2. Does the people confidence in the insurance company?
3. Does the people trust in the types of life insurance?
4. Does the people require benefit in tariff in the future?
5. Does the people require the benefit payment from life insurance program?

3.3. Demography variables effect to attractive factors on buying various type of life insurance programs consist of age, gender, marital status, number of the family members, education, employment, occupation, and income.

Methodology

Using a sample survey which is a non-probability sample survey to select the population to be the sample size of this research. The statistics used in this research are:

1. Descriptive statistics, showing the percentage.
2. Inferential statistics use to test the hypothesis is Chi-square test.

Furthermore, after gathering all data concerned, the Statistical Package for Social Sciences software (SPSS) would be used for evaluation.

Hypothesis Testing

- Stability and security for themselves and their families have relationship to attractive factors in decision to purchase life insurance program.
- Confidence in the insurance company has relationship to attractive factors in decision to purchase life insurance program.
- Trust in the life insurance types have relationship to attractive factors in decision to purchase life insurance program.
- Benefit in tariff in the future has relationship to attractive factors in decision to purchase life insurance program.
- Benefit payment from life insurance program has relationship to attractive factors in decision to purchase life insurance program.
- Demography variables consist of gender, age, marital status, number of the family members, employment no relationship to attractive factors in decision to purchase life insurance program.
- Demography variables consist of occupation, education, and income have relationship to attractive factors in decision to purchase life insurance program.

Empirical Result

The first of result relate to ordinary life insurance program, from the survey 449 questionnaires the people who live in capital of Thailand have 199 respondents to the sample. The people who live in Bangkok choose to purchase endowment life insurance program highest up to 43.22 percent. Subordinate is whole life insurance program up to 31.2 percent and other programs is the last respondents equal 16.6 percent that show in the figure 1

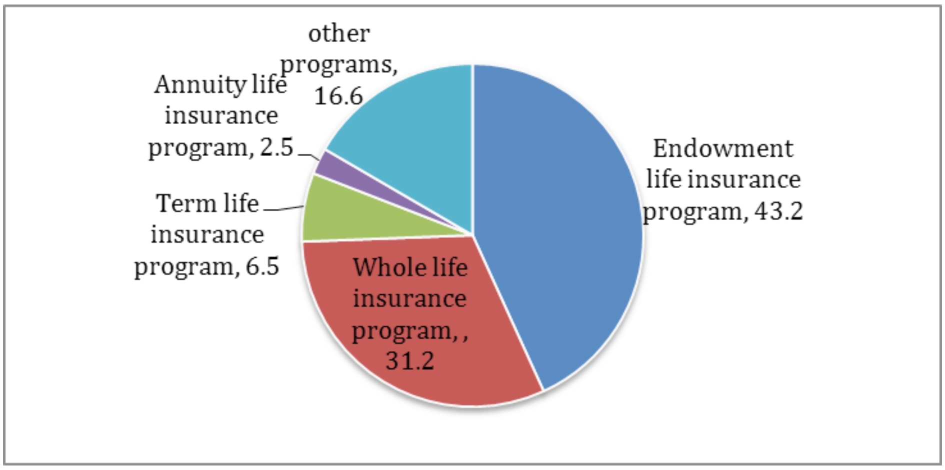

Figure 1. Ordinary life insurance program in the Bangkok

The following result analyzes attract factors affecting the selection to purchase the life insurance, from the survey 449 questionnaires the people who live in capital of Thailand have 197 respondents to the sample. Using Chi square test χ^2 at significant 95 level shown that there are three factor significant 95 level consist of:

1) The people decision to purchase life insurance program from requirement in the stability and security for themselves and their families.

2) The people decision to purchase life insurance from trusting in the insurance system.

3) The people decision to purchase life insurance program for benefit payment.

From the rest of the questionnaires shown that no relationship in the stability of the company that people decision to purchase and benefit in tariff in the future

The last result tests demography variable effect to purchase the ordinary life insurance. The result showed that gender, age, level of education, monthly income and total asset is not significant at 95% level but only occupation is significant at 95% level.

Conclusion

The result showed that people in Bangkok, Thailand decided to purchase life insurance programs because of three following factors; the requirement in the stability and security for themselves and their families, the benefit payment from life insurance program, and the trust in types insurance system. These factors have relationship with decision to purchase on the life insurance program at 95% significant level. Top of the people choose endowment life insurance program, subordinate is whole life insurance program.

From the hypothesis testing, shown that gender, age, marital status, number of the family members, level of education, monthly income and total asset have no relationship to purchase the life insurance program except occupation.

The recommendation from this study is that the insurance company could improve their product of life insurance programs to fit with people needed. Moreover, terms and condition of insurance benefit should be attractive to the choosing in the insurance program.

For the Further research, suggestion to use data other people who live in Thailand and other insurances that attractive factors to decision to purchase insurance.

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Communication and Cultural Dissemination of Contemporary Religious Based on the NewMedia

Sun Jing [1]

Abstract

In contemporary China, the new media is very popular form of communication, The spread of religious and cultural diffusion presents a number of new online and offline communication pattern and communication features, It makes China Religious Culture Communication while facing significant challenges and opportunities, We can see from the government, religious and netizens three aspects to consider solutions.

Keywords: Religious Culture , Communication, New Media

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1. Internet-based new media communication has to penetrate deep into the political, economic, cultural and social dimensions, including all ideas, includes people's daily social life, In new media age the spread of Chinese contemporary religious culture is also heavily influenced.

1.1 Since entering the new media age, religious culture media are quietly changing

1. Oral legend stage:
2. Writing dissemination phase:
3. Typography stage:
4. New media stage:

1.2 Internet users on an unprecedented scale, and new media communication platform pandemic, the spread of traditional religious culture medium to form a great impact. To some extent the spread of religious culture and development had a very profound impact.

The so-called new media[1],generally refers to the use of digital technology, network technology, mobile technology, through the Internet, wireless communication networks, cable networks and other channels to provide users with information and entertainment media forms of communication pattern. As social media, Social Media, it is a new online media and it take "one to many" modes of transmission into "many to many" in dialogue. At present a number of new media mainly spread in the form of social media. These social media included blog, wiki, forum, location sign, micro-blog and social networking. SNS refers to the "real friends" basis, based on common interests between users, hobbies, activities, etc., on the network platform to build a social network service). From the above analysis is not difficult to find, although the essence of religious faith spread its main immobilized and frozen in time. But it is undeniable on the development process of thinking in terms of cultural transmission. In which the evolution of the media plays an important role. Some religious people of insight have been aware of the new media in the dissemination of religion can play an important role. As early as in the Pope 27 May 1989 "International Communications Day" to call the Church "must learn to coexist with the computer culture," and that "the use of advanced computer communication technology, the church can better accomplish his mission [2].

2. Based on the Chinese new media communication overview of contemporary religious culture propagation.

2.1 Number and type of religious sites

Foreign religious site established earlier. Currently, one of the world's three major religions of Christianity, and has the largest number of sites. In the United States there are over 1/3 of the Protestant churches have their own website, and almost all factions or clubs set up their own websites or exclusive. Religious site has grown beyond any existing search engines and website guide"[3].

2.2 New media communication became the new way to spread religious and cultural.

2.3 Based on the new media, the communication and cultural dissemination of religious.

Under the new media communication spread religious culture trend, in the continuation of the Internet based on the propagation characteristics, increasingly showing new features.

Virtual church, religious blog, voice and video chat rooms religion and religious BBS forum is still new media age religion an important platform for cultural communication, In the new media interactive media significantly enhanced participation.

Based on the new media disseminate religious culture media, from the previous one-way means of communication into a two-way interactive communication.

Firstly you can always ask questions and to receive answers to your questions at any time.

Secondly everyone is a preacher.

The above analysis shows, the emergence of new media, the media, for the dissemination of religious culture, is a "double-edged sword".

3. Popular in the new media of the moment, religious and cultural dissemination faced unprecedented opportunities and challenges. How to seize the great opportunity to spread and development, inheritance and development of the positive aspects of religion and culture, at the same time be able to take the right way to deal with new media in order to eliminate the involvement of ways dissemination of religious and cultural influence of the negative? Following aspects should be considered

3.1. The Government's point of view should regulate the Internet in particular, with strict new media management.

3.2 From the main disseminators of religious and cultural perspective, religious people should take a more tolerant attitude to grasp the depth of active learning with new media, especially the use of social media.

3.3 From the perspective of ordinary Internet users, regardless of faith and no religion should be kept on the religious culture of respect and awe, do not pass rumors do not believe rumors, is a basic prerequisite.

Since their own religion, it is an important cultural phenomenon, responsible for the spread of human cultural heritage and important mission. Internet and new media on human religious life had immeasurable impact. Currently on new media and Religious Culture Communication research is still in its infancy, there are further stay in future research on new media, religion and culture through the dissemination of research to enrich the religious and cultural communication theory. Meanwhile, At the policy level how to strengthen the exchange of new media-based approach to manage religious culture to maximize the dissemination of religious and cultural issues such as the spread of positive energy there is need for further discussion.

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Source of Political Tolerance

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Studies have identified that political diversity contributes to increasing political tolerance. Discussing politics with people who do not share political viewpoints provides perspectives that are different from one's own and thus tends to facilitate increased tolerance. It has been found that more intimate relationship between non-likeminded discussion partners mediate the relationship between exposure to political difference and tolerance, suggesting that political difference experienced in strong interpersonal relationships fosters political tolerance.

On the other hand, it was also identified that people in weak tie relationships are more likely to be dissimilar from an individual in the group than those in strong associations. Indeed, studies have found a positive relationship between political tolerance and the number of weak ties individuals maintain, suggesting that weak interpersonal relationships contribute to political tolerance by bringing more diverse political perspectives to individuals. In addition, political diversity experienced in weak tie relationships may also offer qualitative tools with which the process of "agreeing to disagree" can be facilitated.

By examining the extent to which political difference in strong ties and weak ties contributes to political tolerance, this study attempts to locate the source of political tolerance. According to the findings from an OLS regression model, political diversity in weak ties (weak-tie diversity) is a more significant source of political tolerance than political diversity in strong ties (strong-tie diversity).

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Introduction

Political tolerance is one of the core values that support deliberative democracy. It is most commonly defined as support of civil liberties for disliked groups (Mutz, 2006; Stouffer, 1955; Sullivan, Piereson & Marcus, 1982). Research has recognized that political tolerance exists only in the presence of political difference (Huckfeldt, Johnson & Sprague, 2002). Essentially, political tolerance and political diversity are inseparable from each other and hold deliberative democracy together (Huckfeldt, Johnson & Sprague, 2004). Indeed, political diversity could facilitate increased tolerance (Gibson, 1999; Mutz, 2006). However, people's experience of encountering political difference in social relationships could vary with the strength and or weakness of these associations due to different levels of shared understanding and affective mechanisms (Mutz, 2002b).

While a number of studies have investigated the source of political tolerance (e.g., Gibson, 1999; Stouffer, 1955; Sullivan, Piereson & Marcus, 1982) such as political heterogeneity, quite surprisingly, there is only limited research addressing how political diversity experienced through different social relationships may influence tolerance (e.g., Gibson, 1999; Mutz, 2002b, 2006). More specifically, on one hand, it has been found that weak interpersonal associations contribute to tolerance because they bring more diverse political perspectives to individuals (Gibson, 1999). On the other hand, it has also been found that stronger interpersonal relationships facilitate increased tolerance through affective mechanisms (Mutz, 2002b, 2006). It is unclear which of strong and weak interpersonal relationships play a more important role in facilitating tolerance. Therefore, the extent to which political diversity in different strengths of interpersonal associations influence tolerance needs to be clarified. This study examines how political diversity in strong ties, which will be called strong-tie diversity, and political diversity in weak ties, which will be called weak-tie diversity, are related to political tolerance respectively. It will help increase our understanding of the source of political tolerance.

Who Are Tolerant People?

Political tolerance is generally defined as willingness to extend democratic norms and values to least-liked groups. Corbett (1982) sees it as "support for political freedoms and social equality" (p. 3). Sullivan and his colleagues (1982) suggest, "tolerance implies a willingness to 'put up with' those things that one rejects" (p. 2). Similarly, Gibson & Bingham (1982) write that tolerance is "a willingness to permit the expression of those ideas or interests that one opposes" (p. 604). Socio-demographic characteristics such as age, gender, income, education and ideology have been identified as significant predictors of political tolerance (Corbett, 1982; McClosky & Brill, 1983; Mutz, 2002b; 2006; Nunn, Crocket & Williams, 1978; Sullivan et al, 1993; Stouffer, 1955). Generally, younger age, male, higher income and education, and more liberal ideology signal higher political tolerance (e.g., Dineen, 2001; Mutz, 2002b, 2006; Stouffer, 1955; Sullivan, Piereson & Marcus, 1982). Stouffer (1955) found strong evidence of the association of tolerance with elite groups of society.

Political interest and political knowledge have also been found to be significant predictors of levels of political tolerance (Mutz, 2002b; 2006). As can be intuitively predicted based on these correlations, research findings agree on a positive relationship of political tolerance in association with political participation. Political participation can "broaden perspectives" and therefore positively influence tolerance (McClosky & Brill, 1983). Stouffer's (1955) finding of a positive association between political tolerance and elite groups of society also suggested that elite groups of society, who tend to be more tolerant, could be more participatory than regular citizens. Sullivan, Piereson & Marcus's (1982) research based on a national survey from 1978 echoed this finding. More recently, Dineen (2001) observed from a broader representative sample that tolerant people are more participatory, affirming the positive relationship between tolerance and participation.

Another important observation in the literature is the correlation between tolerance and the number of weak ties in people's relationships (Gibson, 1999). In fact, political heterogeneity has been found to contribute to tolerance (Mutz, 2002b, 2006). It is quite likely that people encounter difference, which fosters tolerance, more through weaker relationships or the "marginals" than through strong relationships, with whom they tend to share more similarities. Diverse political perspectives provided by weak relationships facilitate greater awareness of rationales for opposing viewpoints, which in turn fosters tolerance (Mutz, 2002b). One interesting addition to the relationship between political heterogeneity and tolerance is from Mutz (2002b, 2006). She found that more intimate relationships between discussants mediate the association between political heterogeneity and tolerance. In other words, exposure to difference is more likely to foster tolerance when it is encountered in a strong relationship than in a weak relationship. She has also found that tolerant people tend to have more politically dissimilar people in their strong relationships. Together, these findings suggest that, while political difference is more likely to be encountered in weak relationships, once it is encountered in strong relationships, it has a stronger positive influence on levels of tolerance. Thus, to the extent that social networks facilitate increased tolerance, they tend to do so through a critical mass of both "weak" and "strong" yet politically and socio-demographically diverse ties.

In sum, tolerant people tend to be higher in socio-economic status, more interested in politics and thus more politically sophisticated. They also tend to be more politically participatory. They may be more politically diverse as they tend to maintain close and weak relationship with politically and socially heterogeneous individuals.

Source of Tolerance: Strong-Tie Diversity or Weak-Tie Diversity?

The motivation for this study was to understand how political diversity in different relationships is related to political tolerance. Put differently, this paper examines which of strong-tie diversity and weak-tie diversity is a more significant source of political tolerance. Discussing politics with people who do not share political viewpoints provides perspectives that are different from one's own and thus tends to facilitate increased tolerance (Gibson, 1999; Mutz, 2006). As discussed earlier, Mutz (2002b) has found that more intimate relationship between non-likeminded discussion partners mediate the relationship between exposure to political difference and tolerance, suggesting that a closer relationship with a disagreeing discussion partner could facilitate translating difference into tolerance through affective mechanism. Thus, political difference experienced in strong interpersonal relationships fosters political tolerance.

It was also identified that people in weak tie relationships are more likely to be dissimilar from an individual than those in strong associations. Indeed, Gibson (1999) found a positive relationship between political tolerance and the number of weak ties individuals maintain, suggesting that weak interpersonal relationships contributes to political tolerance by bringing more diverse political perspectives to individuals. In addition to contributing to tolerance in this quantitative sense, political diversity experienced in weak tie relationships may also offer qualitative tools with which the process of "agreeing to disagree" can be facilitated. Often times, strong-tie relationships are more casual and informal than weak-tie associations. People share personal matters with family and close friends and tend to present themselves in relaxed selves rather than in a consciously prepared way. In contrast, weak-tie relationships are more likely to be formal than casual, and individuals often have social distance with people in weak relationships. They may prefer presenting themselves prepared in the way they should be, rather than in a fully relaxed way. Indeed, individuals generally do not know the personal side of people in weak associations.

When it comes to political conversation, individuals may be comfortable exchanging unprepared and less-informed ideas with close friends because they share greater understanding of each other as a person firmly rooted in deeper bonding. In comparison, individuals tend to make more prepared and informed remarks when interacting with people who are not very close with. In particular, people would not want to be considered less-informed or untrustworthy in workplace by making comments that are illogical or ungrounded in facts because they might fear that it negatively affects their credibility as a reliable coworker or a supervisor. They might also have the concern that it would hurt various kinds of evaluation of their job performance. It is more likely that individuals come under pressure to a certain extent to provide quality information by making logical, rational and informed comments. Thus, the quality of diverse political information exchanged in weak relationships could be higher than the same in strong associations.

Consequently, the higher quality information may exert greater contribution to increasing individuals' awareness and understanding of rationales for opposing viewpoints, and expanding the "argument repertoire" (Cappella et al., 2002), thereby facilitating the "cognitive mechanism," through which political diversity may foster tolerance (Mutz, 2002b, 2006). Thus, political diversity in weak-tie associations is likely to foster political tolerance.

Given the possibility of both strong-tie diversity and weak-tie diversity for nurturing political tolerance, it is then uncertain which of strong-tie diversity and weak-tie diversity exerts a greater influence on political tolerance. Therefore:

RQ: Which of strong-tie diversity and weak-tie diversity contributes more to political tolerance?

Method

The present research utilizes data obtained from the US Citizenship, Involvement, Democracy (CID) survey conducted by Center for Democracy and Civil Society (CDACS) at Georgetown University and distributed by Inter-university Consortium for Political and Social Research (ICPSR). The CID survey contains items concerning Internet use, informal social networks, the composition and diversity of ties and associations, democratic values and tolerance under the primary themes of democracy, social capital and civic engagement. The survey was conducted between May and July, 2005, by door-to-door interviews with people 18 yr old and older who were household members of occupied residential housing units. The survey used the classic cluster sample design method to provide an approximate self-weighting, or epsem, sample of households across the continental United States. The sample size is 1001 with a response rate of 40.03% based on AAPOR's Response Rate #3 Formula. Missing values were handled by the maximum likelihood estimation. Thus, this study maintains the sample size of 1001.

Political tolerance

Political tolerance was measured by eliciting two least-liked social groups from respondents as suggested by Sullivan, Piereson and Marcus's content-controlled technique (1979). First, a battery of questions asked the respondents to identity two least-liked groups among thirteen political groups, i.e., conservatives, the U.S. Communist Party, Christian Fundamentalists, the Ku Klux Klan, atheists, American Nazis, anti-abortionists, the Society for a New America, Liberals, abortionists, military government supporters, gay rights activists and radical Muslims, and four different racial groups, i.e., White, Black, Hispanic, Asian and Arab Americans (1 = dislike a great deal through 11 = like a great deal). In addition, it also asked if any other groups the respondents dislike are not mentioned. In order to assess level of tolerance for the two leased-liked groups identified, a second set of questions were asked on a five-point scale (1= strongly agree through 5 = strongly disagree) about the extent to which respondent agrees with statement about allowing the groups: freedom of speech, right to run for public office and right to hold public rallies and demonstrations. The mean for the two groups was then computed (Cronbach's α = 0.89).

Strong-tie diversity and weak-tie diversity

Strong-tie diversity and weak-tie diversity were measured with three composite items assessing political in the three primary social circles of close friends, neighbors and coworkers. These variables are different from what is often called political discussion network heterogeneity. Political discussion network heterogeneity observes the people an individual discusses politics with (e.g., Huckfeldt, Johnson & Sprague., 2002; Mutz, 2002a; Schuefele et al., 2006). Strong-tie diversity and weak-tie diversity in this study examines each of the three social networks in its entirety. In other words, they include all of an individual's close friends, neighbors and coworkers, whereas political discussion network heterogeneity is limited to a relatively small number of people an individual discusses political matters with. Therefore, the two variables allow an examination of the broader social networks individuals maintain. For strong-tie diversity, the item asks: *how many of your close friends are different from you in terms of*: (1) *political views*; (2) *religious views*; and (3) *race*, with the assumption that dissimilar religious beliefs and race would inspire political difference (0 = none (0%); 2 = almost none (5%); through 8 = almost all (95%); 9 = all (100%)). The mean of the three questions was calculated (Cronbach's α = 0.8). Two subsequent items asked the same question for the networks of neighbors and coworkers respectively. The mean of the two networks was computed to obtain weak-tie diversity (Cronbach's α = 0.7).

Control variables

Five demographic variables were included as controls: age, gender, race, education and income. The median age of the sample was 44, with 56.3% of female and 43.7% of male. Seventy-two percent was white and 28% non-white. While 30% of the sample was high school graduates, little less than a quarter (23.3%) was college graduates and above. Little less than a quarter (23.5%) of the sample had income under $30,000, while 30% earned between $30,000 and $50,000. Internet news use was measured by the item asking respondents how much of their online time (general Internet use) was spent for following politics and current events (1 = every time online; 2 = most of the time; 3 = some of the time 4 = almost never or never). It was recoded so that higher values indicated higher Internet news use (M = 1.44, SD = .76). General Internet use was measured, with 1 denoting no access to 8 indicating every day, and included as a control since the variable, Internet news use, was in reference of it (M = 4.64, SD = 2.95). Television news use was measured by time spent watching news, with 1 indicating no time at all to 9 representing more than 4 h (M = 3.57, SD = 1.87).

Political attitude items were also included. Political interest was measured, with 1 being very interested to 4 indicating not at all interested, and recoded reversely (M = 2.76, SD = .90). Partisanship was dummy-coded with 1 for nonpartisan and 2 for partisan (28% nonpartisan and 72% partisan), while ideology was measured by self-rating on a scale of 1 indicating liberal to 11 denoting conservative (M = 6.49, SD = 2.21). Finally, network attributes were also included as controls. Close friends' network size was measured with the number of close friends respondents had (M = 3.63, SD = 1.19), while neighbors' network size was measured by the percentage of neighbors respondents knew by name (M = 4.11, SD = 2.0). Coworkers' network size was not included in the survey. Political discussion frequency in each network was measured from direct answers from respondents to the question how often they discussed politics with close friends (M = 2.23, SD = .90), neighbors (M = 1.6, SD = .78), and coworkers (M = 1.99, SD = .86), with 1 indicating usually and 4 denoting never.

Results

The table presents the OLS regression model predicting political tolerance. While political network heterogeneity in weak ties or weak-tie diversity had a strong significant relationship with tolerance ($\beta = .150$, $p \leq .001$), strong-tie diversity had no relation. Therefore, we may say that weak-tie diversity contributes more to political diversity. Not surprisingly, higher education predicted greater tolerance ($\beta = .217$, $p \leq .001$). The results show that weak-tie diversity or political diversity in weak interpersonal associations of neighbors and coworkers contributes to political tolerance. The finding is consistent with previous research attributing the source of tolerance to exposure to difference (Gibson, 1999; Mutz, 2006b, 2006; Stouffer, 1955). Strong-tie diversity, however, was not related to tolerance.

Mutz (2002b, 2006) suggested that political discussion across lines of difference contributes to more intimate relationship with politically non-likeminded people, and that more intimate relationship with non-likeminded discussants was related to higher tolerance, suggesting an indirect relationship between political heterogeneity and tolerance through the affective mechanism of intimate associations with cross-cutting discussants. The result of this study does not support her conclusion. This may be understood as that political difference experienced in strong interpersonal relationships may not always translate to a better understanding of and support for least-liked groups since strong ties are less likely to be those target groups of disliking. While weak ties may as well not necessarily be least-liked groups, one may need more exerted effort to understand political difference experienced in weak ties, which in effect can help individuals develop greater tolerance for the disliked groups, with which individuals have no particular relationships.

Table 1.
Regression Models Predicting Political Tolerance

Variables	Political Tolerance (OLS)
Demographics	
Age	.013
Gender [a]	.046
Education	.217***
Income	-.027
Race [b]	.047
News Media Use	
Internet news use	-.019
General Internet use	.049
Television news use	-.038
Political Attitudes	
Political interest	.127***
Partisanship	-.088**
Ideology	-.050#
Network Attributes: Network size	
Close friends	-.013
Neighbors	.067*
Network Attributes: Discussion frequency	
Close friends	.052
Neighbors	-.030
Coworkers	.043
Network heterogeneity in strong ties (strong-tie diversity)	-.050
Network heterogeneity in weak ties (weak-tie diversity)	.150***
R^2	.144

Note: Entries are standardized coefficients. N = 1,001
$p \leq .10$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$
[a] Female = 0; Male = 1
[b] Nonwhite = 0; White = 1

While news media use variables were not significant predictors, political attitudes were significantly related to tolerance. As could be expected, political interest was highly related ($\beta = .127$, $p \leq .001$). More liberal ideology ($\beta = -.050$, $p \leq .10$) and being nonpartisan ($\beta = -.088$, $p \leq .01$) indicated higher tolerance. The strong relationships of political tolerance to political interest and education echo previous research (Dineen, 2001; Mutz, 2002b, 2006). In particular, apart from providing knowledge, education (schooling) has been found as offering opportunities to be exposed to difference through interacting with people with diverse sets of backgrounds, attitudes and characteristics (Stouffer, 1955). The finding of the likelihood of higher tolerance for liberal ideology and non-partisanship is also consistent with existing studies (e.g., Dineen, 2001).

Discussion

Political tolerance is an important ingredient for pluralistic democracy. The finding of this study identifies weak-tie diversity as a more significant source of political tolerance than strong-tie diversity. While weak-tie diversity had a strong significant relation with tolerance, strong-tie diversity had no association at all. This implies that it might not be just political diversity that helps nurture political tolerance, but some mechanism that creates political diversity in the form of social factors that are relatively more likely to be determined by individuals' social positions and the social circumstances in which they work and live. Therefore, it may be said that individuals have a higher chance of increasing tolerance through engaging themselves functionally in their "field" or their social domain, as well as through the processes of "externalizing the internal" and "internalizing the external " in the relationship between agency and structure as they live their lives (Bourdieu, 1977). Through externalizing the internal, individuals define their roles and relationships in the context of their social positions in their neighborhood and workplace. Through internalizing the external, individuals internalize social expectations for such positions, for example, by maintaining good yet weak relationships with their neighbors or coworkers.

This study has limitations particularly in the measurement of political diversity in both strong and weak social networks. The network size for the three social networks could not be fully controlled. The size of close friends' networks was rendered in the number of close friends, while the size of neighbors' networks was captured as the percentage of neighbors people knew in their neighborhoods. The size of coworkers' networks was not included in the CID survey, and thus not controlled in the analyses. It has been recognized by a number of studies that network size contributes to political participation directly and indirectly (Eveland & Hively, 2005; Kwak et al., 2005). The relatively small coefficient and R^2 values seem to encourage further research on the implication of political diversity in different strengths of interpersonal relationships for political tolerance. The finding of this study is meaningful in that it attempted to clarify what aspect of political diversity contributes to facilitating increased political tolerance, which has been neglected in existing research, and suggested the possibility that the functional and positional aspects of weak-tie diversity contribute to political tolerance. Further attempts can be made to confirm this possibility to explore other aspects of political diversity.

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Relationships between Age, Gender, Marital Status, Headache, Fatigue, Functional Status, General Health Perception, Social Support, and Quality of Life in the Older People with Hypertension

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Abstract

The ultimate target of health care for older people living with hypertension is to increase their quality of life (QoL). The purpose of this study was to examine the association between age, gender, marital status, headache, fatigue, functional status, general health perception, social support, and QoL in the older people with hypertension. The study focused on four domains of World Health Organization Quality of Life-Bref (WHOQOL-Bref). The revised Wilson and Cleary Model for Health Related Quality of Life (HRQOL) was used to guide the study. The study was a cross sectional design involving 177 participants by stratified random sampling at South Denpasar, Bali, Indonesia. Each participant was interviewed according to structured questionnaires consisting of the demographic information, Visual Analog Scale to measure headache and fatigue, Instrumental Activity of Daily Living, Self Rated Health, Social Support Survey, and WHOQOL-Bref. Data were analyzed by Pearson Product-Moment correlation coefficient and Point-biserial correlation coefficient. Main results found that age, gender, general health perception, and social support were significantly associated with the physical domain ($r = -.16$, $p < .05$; $r = .22$, $p < .01$; $r = .22$, $p < .01$; $r = .21$, $p < .01$, respectively). Social support was positively and significantly associated with the psychological domain ($r = .29$, $p < .001$). General health perception and social support were positively and significantly associated with the social domain ($r = .18$, $p < .05$; $r = .22$, $p < .01$, respectively). Gender and social support were positively and significantly associated with the environment domain ($r = .20$, $p < .01$; $r = .40$, $p < .001$, respectively). The study suggested that community nurses should promote social support and health perception in nursing strategies to maintain or increase older people's QoL.

Keywords: quality of life, older people, hypertension, symptoms, functional status, general health perception, social support

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Introduction

Hypertension is one of the chronic diseases and major contributors of morbidity and mortality. World Health Organization [WHO] (2009) reported that hypertension is a risky disease and is the third leading cause of death in the world. It kills almost 8 million people every year in the world and nearly 1.5 million people each year in the South-East Asian Region (WHO, 2011). In Bali, one province of Indonesia, hypertension is 5 top-ranked diseases in primary health centers (PHCs) (Ministry of Health [MoH] of Bali Province, 2011). Moreover, a number of the new cases of hypertension increase annually in Denpasar District of Bali (MoH of Bali Province, 2010).

Although many studies have examined age, gender, marital status, and social support associated with QoL, the results are still inconsistent (McAuley et al., 2000; Cote, Gregoire, Moisan, & Chabot, 2004; Yenny & Herwana, 2006; Chung, Hsu, Wang, Lai, & Kao, 2007; Hsu, 2007; Sartika, 2008; Melchiors, Correr, Pontarolo, Santos, & Sauza, 2010; Muszalik, Dijkstra, Dziora-Kornatowska, Zielinska-Wieczkowska, & Kornatowski, 2011). Most of hypertensive older people undertaken medication treatment have various symptoms such as headache and fatigue (Kulkarni, Bhagwat, Hakim, Khamat, & Soneji , 2001; Joshi, Dahake, & Suthar, 2010). These symptoms can affect their abilities to perform functional status. In addition, the general health perception is very important to evaluate aspects of health (Wilson & Cleary, 1995). According to Ferrans, Zerwic, Wilbur, and Larson (2005), the general health perception can influence the QoL.

Various studies of QoL in hypertensive patients have been performed mostly in clinical cases and focused on the effectiveness of treatment and medication (Fogari & Zoppie, 2004; Cote et al., 2005; Youssef, Moubarak, & Kamel, 2005; Ogunlana, Adedokun, Dairo, & Odunaiya, 2009). However, only few studies are conducted in communities (Theodorou et al., 2011; Thompson, Zack, Krahn, Andresen, & Barile, 2012). Moreover, studies on symptoms, functional status, and general health perception are not investigated specifically in the older people with hypertension. Furthermore, studies with regard to these factors related to QoL have not been explored in Indonesia, particularly in Bali province. Bali has a unique characteristic of the older people, most of them live in a rural area with high life expectancy than they do in an urban area (Hamid, 2007). South Denpasar is the urban area where a number of the older people with health problems increase yearly (MoH of Bali Province, 2010). The incidence of the older people with hypertension found in this area is higher than other areas in Denpasar (MoH of Denpasar, 2012). However, Denpasar district has a good health status with a minimum assistance (13.80 %) from families and health providers to fulfill their daily activities (Rimbawan, 2008). Thus, the current need in this field is to find the relationships between demographics, symptoms, functional status, general health perception, social support, and QoL of the older people with hypertension who live in South Denpasar, Bali.

The revised Wilson and Cleary model for HRQOL was used to guide for selecting variables (Ferrans et al., 2005). This model focused on the relationships among factors of health. There were six factors (i.e. characteristics of individual, characteristics of environment, biological function, symptoms, functional status, and general health perception) influencing QoL. The individual's QoL will increase when the individual has good organ function, diminishing of symptoms, higher functions, and good perception (see Figure 1). The purposed of the study was to examine the relationships between age, gender, marital status, headache, fatigue, functional status, general health perception, social support, and domains of QoL. This study focused on four domains of WHOQOL-Bref consisting of physical, psychological, social, and environmental domains. By understanding these factors, it would be useful for health care providers and family to improve older people's QoL.

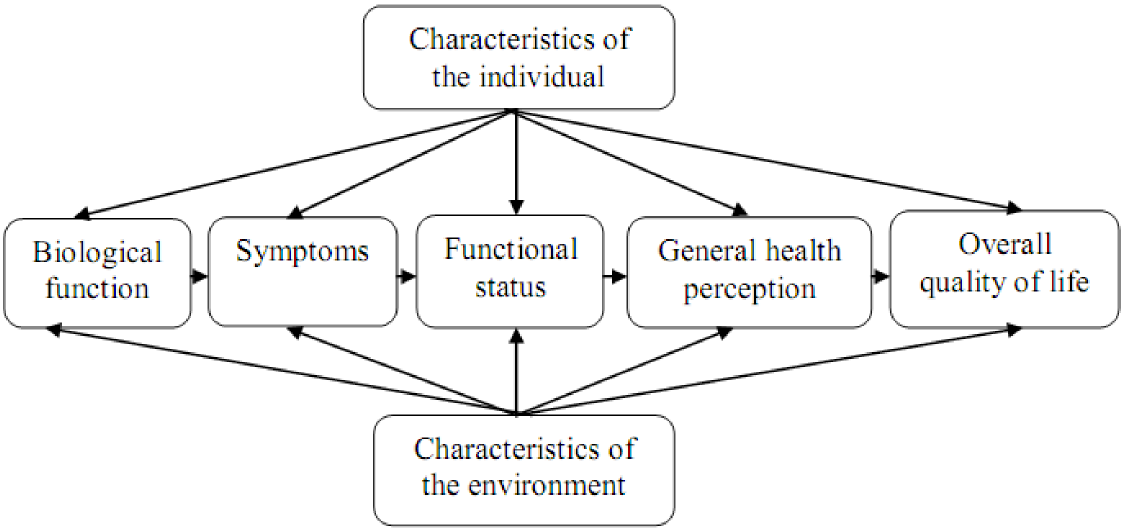

Figure 1. The Revised Wilson and Cleary Model for Health-Related Quality of Life (Ferrans et al., 2005)

Methods

Design and participants

The current study was cross sectional design. There were 177 participants recruited from four PHCs in Denpasar, Bali, Indonesia between May to June 2013. The stratified random sampling based on the proportion in each PHC was used in this study. The inclusion criteria were older people aged 60 years and older, who had been diagnosed hypertension by physicians, and had a good cognitive function evaluated by Mini Mental State Examination (MMSE). Thus, older people whose scores were 24 or higher were accepted, and were willing to participate in this study. Exclusion criteria were older people whose scores were 23 or lower evaluated by MMSE, and were hospitalized.

Measures

The Demographic Information Form was designed by the researchers, which include the residential areas of participants, age, sex, marital status, religion, years of education, occupation, health insurance, income, and comorbidity.

Symptoms were measured by the visual analog scale (Waltz, Strickland, & Lenz, 2010). To rate headache and fatigue, a single numeric rating scale was used with the rates from zero (no headache/fatigue) to ten (extreme headache/fatigue). The instrument was examined in terms of its content validity that showed its relevance and clarity.

The functional status was measured by the Instrumental Activities of Daily Living (IADL) scale developed by Lawton and Brody (1969). It is composed of 8 items for both genders. Responses to each of the eight items in the scales are coded as 0 (unable or partially able to perform those tasks) or 1 (able to perform those tasks); and the responses were summed up. The validity was originally tested by Physical Self-Maintenance Scale; and the inter-rater reliability was established at .85 (Lawton & Brody, 1969). In this study, content validity and internal consistency reliability using Kuder-Richardson 20 were examined. The reliability of the present study was .75.

The Self-Rated Health (SRH) used a single-item of individuals' perception about general health status. The SRH is determined from the question "In general, how would you rate your overall health?". Participants' responses can be 0 (poor) to 10 (excellent) (Jenkins, 2010). In this study, the content validity was examined.

The Medical Outcome Study Social Support Survey developed by Sherbourne and Stewart (1991) was applied to measure the perceived availability of the social support. It contained 19 items. The total scores calculated from the summation of 19 items with the minimum scores = 19 and the maximum scores = 95. The final score was transformed from 0 to 100. The higher scores indicated more supports available. Construct validity was established; and the internal consistency reliability of the original scale was .97 (Sherbourne & Stewart, 1991). In this study, content validity and internal consistency reliability using Cronbach's alpha coefficient were examined. The reliability of the present study was .84.

The WHOQOL-Bref developed by WHO (1996) was used as a measure of individuals' perceptions on their own QoL in the context of their culture and value systems and their personal goals, standards, and concerns. It contained 26 items grouped into 4 dimensions (physical, psychological, social, and environmental) and 2 items measuring overall QoL and health. The scores of each domain calculated were based on WHOQOL administration of scoring (WHO, 1996; WHOQOL, 2004) and the scores were transformed from 4-20 (WHO, 1996; Teodorescu et al., 2012). Higher scores indicated better QoL. The construct validity was established by Skevington, Lotfy, and O'Connell (2004). The internal consistency reliability of the original scale was physical domain = .80, psychological domain = .76, social domain = .66, and environmental domain = .80 (WHOQOL Group, 1998 cited in Teodorescu et al., 2012). This instrument was examined in terms of the content validity and the internal consistency reliability by using Cronbach's alpha coefficient; and the results were adequate in this study. The Cronbach's alpha coefficients of the samples in the current study were physical domain = .71, psychological domain = .69, social domain = .70, and environmental domain = .69.

All instruments were translated in Bahasa version except IADL and WHOQOL-Bref because they were provided in Bahasa language.

Procedures and ethics

The study was approved by Ethics Review Board Committee for Research Involving Human Research Subjects, Boromarajonani College of Nursing Nopparat Vajira, Bangkok, Thailand. The permissions for data collection were obtained from MoH of Bali province, Board for National Unity and People's Protection of Bali province, Health Department of Denpasar, and PHCs of Denpasar. Participants were given opportunities to determine whether they would like to participate in the study voluntarily. Equally important, the participants were assured that their rights and confidentiality during the study were protected. They were informed about the objective, procedures, and benefits of the study. After they fully understood, they were willing to participate by signing the informed consent.

Instruments completed at PHCs, elderly club, and older people's homes by researcher and two trained research assistants by using structured interview following all items in the questionnaires. The duration of interview was 25 to 45 minutes. The inter-rater reliability was performed with the Cronbach's alpha coefficient .96.

Statistical analyses

Descriptive analyses included the frequencies and means of demographic variables. Headache, fatigue, functional status, general health perception, social support, and QoL consisted of the overall of QoL, health, physical, psychological, social, and environmental domains analyzed by using the mean, standard deviation (SD), and range.

Bivariate analyses were used to find the relationships between variables using Pearson Product-Moment correlation coefficient and Point-Biserial correlation coefficient. For statistical analysis, the study used Statistical Package for the Social Sciences (SPSS) version 15.0 for windows (SPSS Inc., Kasetsart University, Thailand).

Results

All of the participants (177 older people) completed the interview; and their demographics and clinical characteristics were analyzed.

The mean age and educational level of the participants were 66.44 years old (SD = 5.83) and .82 years (SD = 3.53). Most of the participants were female (50.30%), married (75.71 %), Hindu believers (81.92 %), jobless (68.93 %), had government insurance (90.96 %), and had yearly income of less than Rp. 10.000.000 (63.28 %). Almost three-quarters of the participants had comorbidity (73.45 %). Osteoarthritis was the most comorbidity of the participants (65.38 %), as shown in Table 1.

Table 1.
Frequency, percentage, mean, and standard deviation of demographic characteristics among older people with hypertension (N=177)

Demographic characteristics	Participants	
	N	%
Age		
60 – 70 years	135	76.27
71 – 80 years	42	23.73
	M = 66.44, SD = 5.83 (Range = 60–80 years)	
Years of education	M = 6.82, SD = 3.53 (Range = 3-18 years)	
Gender		
Male	88	49.70
Female	89	50.30
Marital Status		
Single/Widowed	43	24.29
Married	134	75.71
Religion		
Hindu	145	81.92
Islam	29	16.38
Christian	3	1.70
Working		
Still working	55	31.07
Not working	122	68.93
Health Insurance		
Government Insurance	161	90.96
Private Insurance	16	9.04
Income (yearly)		
Less than Rp. 10,000,000	112	63.28
Rp. 10,000,000 – 19,999,999	54	30.51
Rp. 20,000,000 or over	11	6.21
Comorbidity		
Yes	130	73.45
No	47	26.55
Kind of comorbidity		
Osteoarthritis	85	65.38
Visual problem	16	12.31
Diabetes	7	5.38
Stroke	3	2.31
Others	19	14.62

Participants rated their headache, fatigue, and functional status at the moderate level (headache: M = 4.95, SD = 1.29; fatigue: M = 5.36, SD = 1.31; functional status: M = 3.92, SD = 2.33). General health perception (M = 6.53, SD = 1.28) and social support (M = 70.87, SD = 7.27) tended to be at high level, as shown in Table 2.

Table 2.
Descriptive statistics of headache, fatigue, functional status, general health perception, and social support among older people with hypertension (N = 177)

Variables	Mean	SD	Range[1]	Range[2]
Headache	4.95	1.29	3 – 8	0 – 10
Fatigue	5.36	1.31	3 – 8	0 – 10
Functional status	3.92	2.33	1 – 8	0 – 8
General health perception	6.53	1.28	3 – 10	0 – 10
Social support[3]	70.87	7.27	51.32 – 86.84	0 – 100

Note: [1] = range scores based on samples' responses
[2] = range scores based on questionnaire
[3] = scores based on transformed scores 0 – 100

The mean scores of the overall QoL and the overall health tended to be high (M = 3.62, SD = .55; M = 3.67, SD = .60, respectively). For the QoL sub-domains, the mean score on environmental domain of the QoL in the participants was the highest (M = 15.23, SD = 1.41) followed by the social domain (M = 14.18, SD = 2.26), the physical domain (M = 13.79, SD = 1.25), and the psychological domain (M = 13.51, SD = 1.45) as the lowest (see Table 3).

Table 3.
Descriptive statistics of quality of life domains among older people with hypertension (N = 177)

QoL	Mean	SD	Range[1]	Range
Overall QoL	3.62	.55	2 – 5	1 – 5
Overall health	3.67	.60	2 – 5	1 – 5
Physical	13.79	1.25	11 – 17	4 – 20[2]
Psychological	13.51	1.45	11 – 17	4 – 20[2]
Social	14.18	2.26	8 – 20	4 – 20[2]
Environmental	15.23	1.41	12 – 18	4 – 20[2]

Note: [1] = range scores based on samples' responses
[2] = range scores based on transformed scores

As shown in Table 4, age was weak, negatively significantly associated with physical domain of QoL ($r = -.16$, $p < .05$). Gender, general health perception, and social support were weak, positively significantly associated with the physical domain of QoL ($r = .22$, $p < .01$; $r = .22$, $p < .01$; $r = .21$, $p < .01$, respectively). Social support was weak, positively significantly associated with the psychological domain of QoL ($r = .29$, $p < .001$). General health perception and social support were weak, positively significantly associated with the social domain of QoL ($r = .18$, $p < .05$; $r = .22$, $p < .01$, respectively). Gender and social support were positively significantly associated with the environmental domain with weak-to-moderate coefficient correlation ($r = .20$, $p < .01$; $r = .40$, $p < .001$, respectively).

Table 4.
Bivariate Correlations of age, gender, marital status, headache, fatigue, functional status, general health perception, social support, and domains of quality of life (N=177)

Variables	Domains of QoL			
	Physical	Psychological	Social	Environmental
Age[a]	-.16*	-.06	-.07	-.10
Gender[b]	.22**	.10	-.08	.20**
Marital status[b]	.09	.11	.03	.07
Headache[a]	-.00	.12	-.06	.07
Fatigue [a]	.06	.02	.06	.05
Functional status[a]	.11	-.01	.06	.02
General health perception[a]	.22**	.14	.18*	.10
Social support[a]	.21 **	.29***	.22**	.40***

Note: ([a]) = Pearson product-moment correlation coefficient; ([b]) = Point-biserial correlation coefficient
* p < .05; ** p < .01; *** p < .001

Discussion

According to the study's findings, age was negatively significantly associated with the physical domain. Gender, general health perception, and social support were positively significantly associated with the physical domain. The results were expected with the objective of the study and supported by the revised Wilson and Cleary model. The model illustrated that the characteristics of individual (age and gender), characteristics of environment (social support), and general health perception influenced the QoL (Ferrans et al., 2005). The results indicated that the younger older people still had good functions, so they can take care of themselves better than older people. It is noted that most participants in this study were 60 – 70 years old (76.27 %); they had a better physical QoL. The finding of this study was in line with previous studies (Yenny & Herwana, 2006; Theodorou et al., 2011). Regarding of gender, the female older people had a good physical QoL than the male. It might be possible that women pay more attention in their physical. Boureau (2005) stated that women focused more on their personal lives than men. Additionally, the life expectancy of the female was higher than male (MoH of Indonesia, 2013). In terms of general health perception, when the hypertensive older people who had a good perception about their overall health would have a high physical domain of QoL. However, Sondergaard and Juul (2010) stated that patients with a chronic illness had a lower general health perception; and it can decline the QoL. In the present study, even though the participants were living with chronic illness, they perceived their health status as good to excellent after readjusting their definition of health. Therefore, they had a good physical domain. Other finding found that social support was associated with the physical domain. It reveals that the good support from significant others (i.e. family, friends, and health providers) enabled older people to have more responsibilities in their Qol physical. Prior studies reported that social support was a major role in maintaining QoL (McAuley et al., 2000; Kuhirunyaratn, Pongpanich, Somrongthong, Love, & Chapman, 2007). It was also supported by the revised Wilson and Cleary model that social support was included in the environment characteristics influencing QoL (Ferrans et al., 2005).

The present study found that social support was positively significantly associated with the psychological domain. The result was expected with the objective of study and supported by the revised Wilson and Cleary model. The model illustrated that social support as part of environment characteristics influenced QoL (Ferrans et al., 2005). The result reflects that when the older people have a good support from significant others, they can release their depression and anxiety so they can increase their QoL. Similarly, Brown and Roose (2011) found that by minimizing the depression and anxiety, the QoL in the psychological domain increased. Another reason is that most of Balinese older people live in an extended family. It portrays that when the older people have not good feelings, they can talk and discuss with their family to release their problems.

This study reported that general health perception and social support were positively significantly associated with the social domain of QoL. The results were expected with the objective of the study and supported by the revised Wilson and Cleary model. The model illustrated that environment characteristics (social support) and general health perception influenced QoL (Ferrans et al., 2005). The finding means that when the older people have a good health perception, they can maintain their social life and continue to work because they may think that their conditions are not obstacles for them. In this study, there was 31.07 % of older people still working; and most of them involved in the elderly club. Good support from significant others enabled older people in the present study to have confidence to interact with others. Similarly, previous study indicated that having good social resources was part of having good QoL (Gabriel & Bowling, 2004).

The current study revealed that gender and social support were positively significantly associated with the environmental domain of QoL. The results were expected with the objective of study and supported by the revised Wilson and Cleary model. The model portrayed that individual characteristics (gender) and environment characteristics (social support) influenced QoL (Ferrans et al., 2005). The study's findings reflect that female older people have a good QoL in the environmental domain. In personality, women are more talkative than male. This can make good relationships with health providers regarding how to maintain the environment to increase their health. In terms of the social support, support from significant others can make older people show their abilities in accordance with their roles in their life. Chan and Rance (as cited in Kuhirunyaratn et al., 2007) stated that supportive relationships within social networks were essential for enhancing life quality and ensuring happiness in a later life. In addition, Denpasar is urban area provided better safety and facilities to support older people's activities and health.

However, the present study found that marital status, headache, fatigue, and functional status were not associated with all QoL domains. The results were not expected with the objective of study and not supported by the revised Wilson and Cleary model. The results implies that even though older people were single or married, no headache/fatigue or extreme headache/fatigue, and high or low functions, they were not correlate with QoL domains. It might be possible that older people in current study did not have severe hypertension and symptoms as well as they can perform their functions; thus, these conditions did not interfere or impact to their QoL. In terms of marital status, older people who were single or married still got support from others so they can maintain their QoL. It supported by the average of social support in present study tended to be high level (M = 70.87, SD = 7.27). This reflects culture of Balinese that is extended family (Rimbawan, 2008) and has close relationships within family and society as WHO (1996) identified that QoL related to culture, value, and belief.

This study had strengths and limitations. The strengths of study were the participants recruited from older people by using the stratified random sampling with proportion for each PHC. The interview method was employed to gather the data. However, there were some limitations. The results of study may be limited to generalize to other older people with hypertension in other geographical areas because the study was conducted in Bali. Most of the participants were Hindu; and had low education and income. In addition, the current study is used only at one place in collecting data at one point in time. The cross sectional nature of this study does not allow for causal interpretations of the results.

Conclusion

This study is useful to provide preliminary data about associated factors of QoL in older people with hypertension in the Indonesian context. It supported that age, gender, general health perception, and social support were correlated with domains of QoL. However, there may be indirect factors that can influence the older peoples' QoL and requires further studies. This study suggested that community nurses should promote social support and health perception in nursing strategies to maintain or increase older people's QoL. For future studies, the longitudinal design and multi settings study should be considered. An intervention study focused on health perception and social support to increase QoL in hypertensive older people is also needed.

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The Trajectory Relationship among Need for Welfare Service, Network Centrality and Satisfaction in Community: The Longitudinal Research

Byeongro, Kang [1]

The purpose of this study is to present a mediate effect of network centrality with a trajectory relationship between the need for welfare service and satisfaction in community.

1 Banpo Community Welfare Centre

Introduction

The purpose of this study is to present a mediate effect of network centrality with a trajectory relationship between the need for welfare service and satisfaction in community. The last decade has seen a growing interest in social network in the field of social welfare. Because of changes in the delivery system of social welfare services, the formation of Community Welfare Committees, and the introduction of case management, the community welfare network has recently expanded in Korea. Although there are outcomes due to the development of community welfare networks, a problem is beginning to appear at the same time. Based on this viewpoint, investigation into the mediate effect of network centrality the relationship between need and satisfaction in trajectory must be continuously conducted.

Diversity Issues on Social Network in Community Welfare

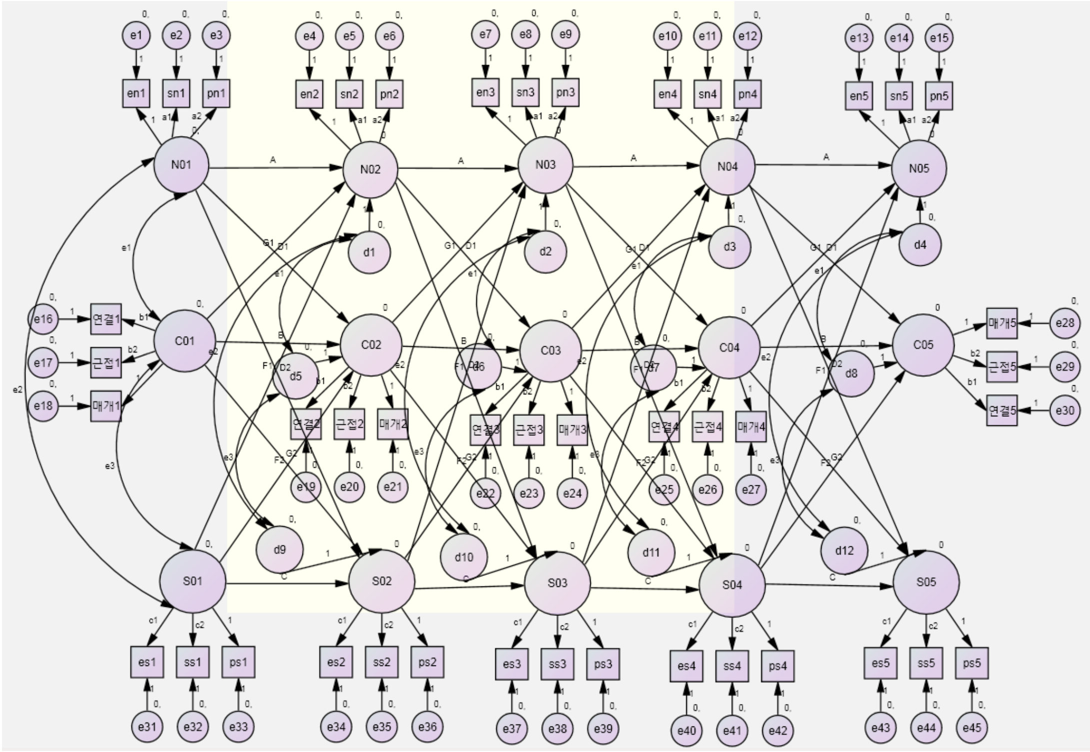
This study was limited to a review of the longitudinal relationship of three variables in the previous study. Mainly, the limitation of existing research is that it holds a theoretical bias, utilizes static methodology, and has an oversimplified consideration of the social network. Some problem on social network for youth is related with multiple service, unspecific service performance, high workload, invisible resource and unstable budget, insufficient participation of stakeholder, tensional cooperation of public sector and private sector, etc. It is divided into aspects of personal, organization, institution and community, too (Auslander & Litwin, 1990). Critically speaking, it is necessary to approach social adjustment from an essentially positive perspective. Alternately, this study argues an approach with a client-oriented viewpoint, longitudinal research, and holds a perspective of relationships and structure in the social network. According to the mentioned above, the author will suggest that service provider requires task and strategy as social network in community welfare.

Theoretical Background

In both academic research and practitioner literature, we see a number of themes emerging of particular relevance for community welfare. Grounded on theoretical background, it is important that the needs for welfare include existence, relatedness and growth (Alderfer, 1969; Kang, 2008). The Social network for welfare is the diverse activity of cooperation and solidarity for client which is provided welfare service in community (Cuacea et al., 1994). The performance on social network of community welfare involved in a change of life service user, client's satisfaction, service development and provision based on integrated approach, service effectiveness and efficiency, organizational performance. Based upon the theory of quality of services, satisfaction was related with the quality of life and service in the longitudinal and cross-sectional study (Proctor et al., 2005).

Research Design and Model for Analysis

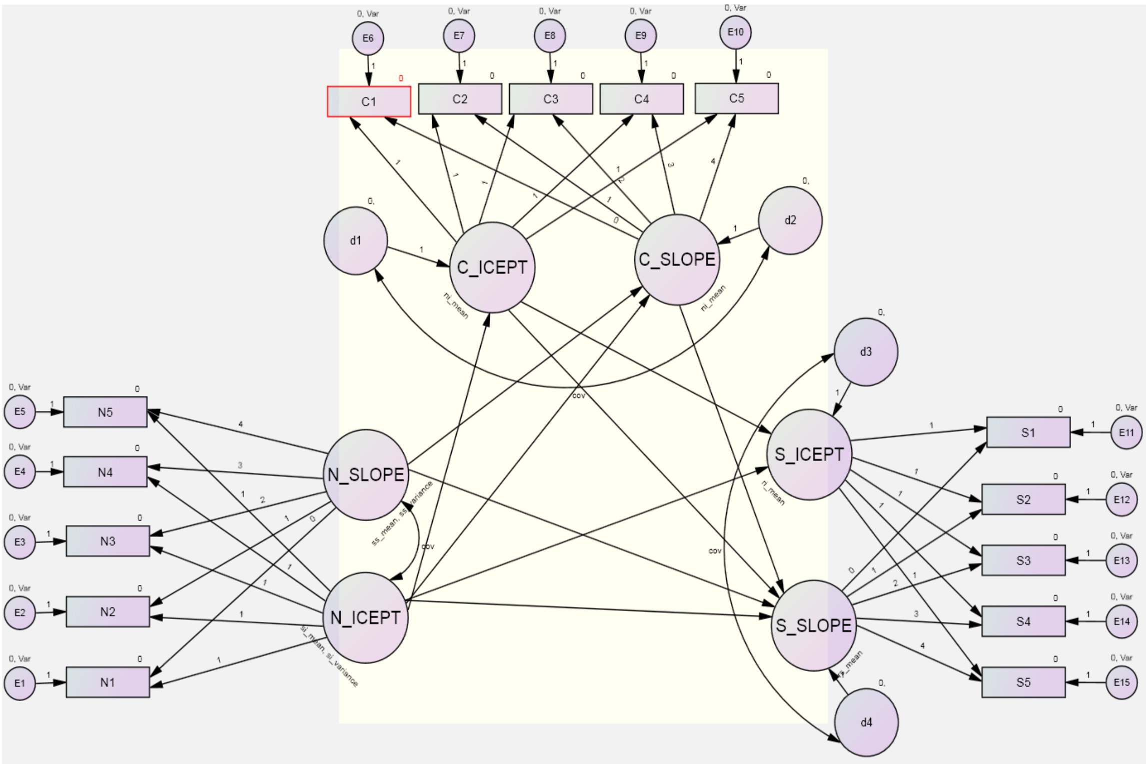
For this purpose, the research design includes the Auto Regressive Cross-Lagged Model, the Latent Growth Curve Model, and the Multivariate Latent Growth Curve Model (see Figure 1, Figure 2). Basically, Specification of a latent growth curve model for a linear trajectory includes two latent variables – an intercept and a slope – and for each, two parameters – the mean and the variance. The mean of the intercept factor represents average initial status, whereas the mean of the slope factor represents average linear growth over time. The variance of the intercept factor represents individual differences in initial status, whereas the variance of the slope factor represents individual differences in linear growth over time (Voils et al., 2007). The Multivariate Latent Growth Curve Model was identified by Latent Growth Curve Model for estimating the mediated effects in trajectory (Preacher et al., 2008).



Note: N = need, C= network centrality, S= satisfaction.

Figure 1. Auto Regressive Cross-Lagged Model

To obtain these objectives, this study examined the findings of the survey with quantitative analysis with social network design and longitudinal two-mode social network analysis (Scott, 2000; Lazega et al., 2011; Kleinnijenhuisa and Nooy, 2011). Two-mode network analysis in social network was used to estimate network centrality due to two mode data in KWPS (Agneessens & Everett, 2013). This study defined a resident as service users of households from the Korean Welfare Panel Study (KWPS) from 2006 to 2010. The author examined status and trajectories of needs, network centrality, and satisfaction of welfare services at the individual levels over five years. The variables of this study are the need for welfare service as independent, network centrality as mediate, and satisfaction as dependent. Data analysis was conducted with frequency, descriptive, and correlation with SPSS 20, the social network analysis with Ucinet V6 (Borgatti et al. 2002), and the latent growth model with AMOS 19.



Note: N_ICEPT, N_SLOPE= intercept and slope of need, / C_ICEPT, C_SLOPE=: intercept and slope of network centrality / S_ICEPT, S_SLOPE= intercept and slope of satisfaction.

Figure 2. Multivariate Latent Growth Curve Model

Findings

The results of this study are as follows:

Firstly, the results of descriptive statistics showed that need and network centrality rise in five waves, while satisfaction demonstrated a tendency to increase differently after a decrease. In correlation, it was found that need was both highly and positively related to network centrality and need and network centrality correlated negatively to satisfaction.

Secondly, it was observed that significant findings were attributed to the auto regressive effect and the cross-lagged effect relationship among the three variables through the Auto Regressive Cross-Lagged Model. This result has proven leading variables and longitudinal interrelations meaningfully.

Thirdly, the trajectory of the three variables showed significant results with the Latent Growth Model. There was significant variation in the direction and rate of change over time. Need and centrality continuously increased. On the other hand, satisfaction had a tendency of rising after a period of falling. In this respect, the trajectory narrowly estimated to the linear change of three variables.

Lastly, a partial mediate effect of network centrality in relations between need and satisfaction was established as the best-fitting model with Multivariate Latent Growth Model. In spite of being a significant model, network centrality had a negative mediate effect on satisfaction unlike previous main research.

Discussion

There are main point emerging from the evidence presented in this paper and the argument developed around it. According to recognition of the significance of sustainable welfare, social network is marked by client-oriented perspectives, longitudinal approach, and an insight of relationship and structure in community.

Through these results, this study found the theoretical, practical, and political implications below.

The theoretical implications of this study constitute meaningful perspectives on relation and structure, longitudinal studies, client- centered approaches for social networks. This research was explained by a theoretical model on need, community welfare network, and satisfaction of social welfare service. Critically, the author suggests that we need to change the paradigm through reflexivity of value for the social network in the community. The principles on the delivery system and the social network for social welfare have to be reviewed alternatively.

The practical statements are related to a critical review and establishment of direction in social work practice to utilize the social network effectively. The study proposed scientific development, management of need and satisfaction in service. Because it was a client-oriented approach in the study, residents as networkers for community welfare, should be empowered through more suitable service. The social network must be applied to systematic intervention in social work practice, based on community welfare network (Ennis & West, 2010). This study suggests the adoption of a new research perspective with a two-mode network in the field of social networks, more specifically in areas related to social welfare.

The implication on social welfare policy is the strategic reform of the delivery system for social welfare service and innovation of the community welfare network. Because increasing social networks during five years may be ineffective and may not be possible for a portion of people who receive mismatched and complicated support, interventions to increase social services may need to reform for the empowering resident in community. The results suggest network management for improvement in the network's effectiveness.

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Factors Related to Dementia among Older People Attending the Elderly Club of Berg-Prai Sub-district, Banpong, Thailand

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Abstract

Dementia becomes a significant problem of older people in Thailand. However, only a few studies mentioned about the relating factors of dementia and most of them focuses on people living cities. This study aims to examine relating factors of dementia amongst older people living in a rural area, Berg-Prai district, Banpong Ratchaburi, Thailand.

Methods: A cross sectional correlation study was used. 91 older people living in and attending the activities of the Berg Prai elderly club were recruited to the study. There are five main tools to measure participants: personal data such as gender, age and education; Instrumental Activity of Daily living; Bathel index of Activity of Daily living; Thai geriatric Depression Scale and Mini Mental status examination. The inter-rater reliability of these instrumental tools amongst research team, trained by the researcher and then were tested and ranged from 0.8-0.9. All participants, who agreed freely to take part in this study, were interviewed and tested using the instrumental tools by the research team. The descriptive statistics such as percentage, means, standard deviation and spearman rhos were used because these data were not met the assumption of correlation, so non parametric analyses were used.

Results: Most participants were female (87.9%), age ranged between 60-80 years, (Mean =65.98, SD= 7.8) and graduated lower than the bachelor's degree (87.9%). Most people had a high level of instrumental Activity of Daily living (Mean= 6.98, SD=1.12)as well as Bathel index ADL . Furthermore, the MMSE score indicated the 33% of participants was at the mild level of dementia and the average MMSE score was at 23.89, SD=4.5. Only two variables- educational level ad Instrumental Activity of Daily Living, were significantly correlated to the MMSE score, whereas, gender, age, Bathel Index ADL, Thai geriatric depression scale could not show the significant difference.

Recommendation and Implication: Results from this study demonstrate the relationship between educational level, IADL and MMSE score among independent older people attending the Berg Prai elderly club. These may guide to practice regards to encourage older people to maintain their instrumental ADL and to see the health care profession to be cognitive tested; For the Policy makers, these results may guide to increase the minimal requirement of educational to increase the educational level. However, generalizing to other groups may be cautious because a small number of participants and one sub-district.

Keywords: Dementia screening, MMSE, Correlation, Relating factors, rural area

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Background

Dementia is accepted as the most significant problem for older people worldwide(Alzheimer's Disease International, 2009, 2010). It becomes a significant issue of older people in Thailand (Jitapunkul, Chansirikanjana, & Thamarpirat, 2009; Wangtongkum, Sucharitkul, Silprasert, & Inthrachak, 2008) because of ageing population and high prevalence, high negative impacts and a lack of well established long term care system.

Currently, there is a high prevalence of dementia alongside an ageing population. Based on the statistics, Thailand is turning to ageing society at 14% of older people who aged over 60 years over number of all people in Thailand. Additionally, dementia which is related to age, so when older people have a long life expectancy, they tend to have dementia. Furthermore, most thai people suffers from chronic illnesses, such as Diabetes Mellitus, hypertension, hyperlipidemia, which may affect to brain functions or blood circulation in brains. The prevalence of dementia in Thailand are varied based on age groups, in particular, age over 80 years, the prevalence of dementia is about 33% (Wangtongkum et al., 2008).

The negative impacts of dementia are many ways: on older people themselves, on caregivers (Krairit & Chansirikarnjana, 2007) and society. Older people with dementia becomes dependant when turn to the late stage of dementia(Malone et al., 2009). These situations also lead to various issues on caregivers because they need to provide 24 hours care, especially most caregivers reported that caring for people with middle stage dementia which usually include neuropsychiatric symptoms such as paranoid, delusion or hallucination. All these reasons made caregivers feel stress and low quality of life.

A lack of well established long term care system in Thailand also increase impacts on caregivers because they need to provide care for 24 hours without a good support from the public long term care system.

Therefore, it is crucial to prevent dementia for people in community dwelling before dementia occurs. Knowledge about dementia or relating factors of dementia in the Thai context are urgently required. However, only a few studies mentioned about the relating factors of dementia and most of them focuses on people living cities.

Therefore, this study aims to examine relating factors of dementia amongst older people living in a rural area, Berg-Prai sub district, Banpong Ratchaburi, Thailand.

Methods

Research design

A cross sectional correlation study was used.

Population and sample

Population

Approximately 1,000 Older people living in Bergprai sub-district Banpong Ratchaburi were a population of this study.

Sample

91 older people living in and attending the activities of the Berg Prai elderly club were recruited to the study.

Instrumental tools

There are five main tools to measure participants: personal data such as; Instrumental Activity of Daily living; Bathel index of Activity of Daily living; Thai geriatric Depression Scale and Mini Mental status examination.

First, personal data includes gender, age and education.

Second, Instrumental Activity of Daily living (IADL) aims to measure competence to do the complicated activities in daily life which requires a mixture of brain functions such as telephone use, medication administration, cooking, money management etc. Normally, IADL will be lost before the Bathel Index Activities of Daily Living: IADL lower scores means the less competence and require help from others.

Thrid, Bathel index Activities of Daily Living (BADL) (Collin, Wade, Devies, & HOorne, 1988)aims to measure competence to do the basic daily activities such as moving from bed to chair, bathing, grooming, feeding, etc. lower scores means the less competence and require help from others.

Fourth, Thai geriatric Depression scale(Train The Brain Forum Committee, 1994) aims to measure the depression in older people. This instrument was developed by experts committee from Train the brain forum. Higher scores means the depression occurs.

Fifth, Mini Mental status examination.(Thai 2002) were developed by Fonstein and then translated into Thai and adjust some items appropriate to the Thai context (The committee for primary brain test Thai version, 2000).

The inter-rater reliability of these instrumental tools amongst research team, trained by the researcher and then were tested and ranged from 0.8-0.9.

Ethical consideration

The researcher and research assistants collected the data using ethical consideration in terms of agreeing freely, privacy, results will be reported as a whole and used participants' data for only the benefits on academic and research.

Data collection

All participants, who agreed freely to take part in this study, were interviewed and tested using the instrumental tools by the research team. The descriptive statistics such as percentage, means, standard deviation and spearman rhos were used because these data were not met the assumption of correlation, so non parametric analyses were used.

Results:

Most participants were female (87.9%), age ranged between 60-80 years, (Mean =65.98, SD= 7.8) and graduated lower than the bachelor's degree (87.9%). Most people had a high level of instrumental Activity of Daily living (Mean= 6.98, SD=1.12) as well as Bathel index ADL.

Furthermore, the MMSE score indicated the 33% of participants was at the mild level of dementia and the average MMSE score was at 23.89, SD=4.5.

Only two variables- educational level ad Instrumental Activity of Daily Living, were significantly correlated to the MMSE score, whereas, gender, age, Bathel Index ADL, Thai geriatric depression scale could not show the significant correlation.

Variables	Correlation Coefficient	Sig. (2-tailed)
Gender	-.100	.347
Age	.016	.877
Educational level	.246*	.019*
IADL	.456**	.000*
BADL	.175	.097
TGDS	-.172	.104
MMSE	1.000	0.00

Discussion

There were three main topics for this discussion part.

Personal Characteristics

Most participants were female (87.9%), age ranged between 60-80 years, (Mean =65.98, SD= 7.8) and graduated lower than the bachelor's degree (87.9%). Most participants were female because of the averaged age of women is higher than men (ref). Additionally, age of participants also varies between 60-80 years which consistent with the trends of Thailand (ref). Furthermore, the participants reported that they are graduated lower than the Bachelor's degree because this areas is a good place for older people living with their family because in this areas there are not far from Banpong district and having the factories which are appropriate places to work for the adult children.

Most people had a high level of instrumental Activity of Daily living (Mean= 6.98, SD=1.12) as well as Bathel index ADL. It is because of attending activity in elderly club requires to have a good health, being able to walk and being able to commute to the center themselves or by their adult children help. However, from this study, some instrumental activities of daily living such as money management and commuting to other place by public transport were the less frequent. This may be cause that in the Thai culture, most adult children who look after older people usually provide a good care for them by replacing the hard work or most activities for them. Therefore, even some older people can do the instrumental activities but when they did not use their abilities, they usually loss it.

There were significant relationship only between IADL and Educational level and MMSE scores which congruent with personal characteristics of this group of participants because people who can attend the activities requires to be healthy and independent and it also congruent with previous study which mentioned that people who have MMSE score at mild level of dementia usually loss their instrumental abilities which are comprehensive task and require many brain functions. Additionally, the educational level also congruent with MMSE score guideline (Jitapunkul et al., 2009).However, interestingly, Thai Geriatric Depression Scale did not relate to the MMSE scores even though some studies advised about the chronic depression scale may be related to dementia in the future.

Recommendation and Implication

Results from this study demonstrate the relationship between educational level, IADL and MMSE score among independent older people attending the Berg Prai elderly club.

These may guide to practice regards to encourage older people to maintain their instrumental ADL and to see the health care profession to be cognitive tested.

For the Policy makers, these results may guide to increase the minimal requirement of educational to increase the educational level. However, generalizing to other groups may be cautious because a small number of participants and one sub-district.

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Media Discourses on the Health Effects of Radio Frequency from Electromagnetic Field (RF/EMF) Exposure in Malaysia

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Abstract

There has been a long standing concern about the health effects of exposure to radio frequency from electromagnetic fields (RF/EMF) from mobile telecommunications as well as telecommunication and radar towers. The construction, representation and framing of the RF/EMF issue in media texts is of great significance because media discourses, in general, are deeply embedded in our daily lives and circulate extensively across people, cultures, events and institutions. A close scrutiny of the discursive production practices and the consumption of the media texts that represent the RF/EMF issues is, thus, of great importance.

This paper examines the ways in which the RF/EMF exposure issues are framed in the media reporting of these issues. We will be examining, specifically, media texts from five newspapers in Malaysia between 1995 and 2012. Through a close examination, we hope to reveal the ways in which media discourses not only frame and represent the RF/EMF issue, but also actively play a role in the construction of meanings about exposure to RF/EMF.

This study attempts to examine the ways in which the media both constructs and represents public opinion and the circulation of meanings on this issue. In doing this, we investigate which angles are given prominence in the reporting of the RF/EMF issue and the ways in which these angles are framed in the media texts in order to create meaningful potential. The paper also examines the voices that are accorded access in the media and the ways in which these voices are represented in these media texts.

Keywords: Critical Discourse Analysis, Discourse Representation, framing, health, media discourse, radio frequency (RF)

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Introduction

This study attempts to examine how information regarding health effects of radio frequency (RF) from electromagnetic field (EMF) is conveyed in the print media in Malaysia. The main objective of this study is to examine the thematic frames that are significant in the reporting of the RF-EMF issue. Through a close examination, the study reveals the ways in which media discourses not only frame and represent the RF/EMF issue (as well as the people involved with the issue), but also actively play a role in the construction of meanings about exposure to RF/EMF. As such, this study aims to look the discursive strategies employed by the press when presenting information on health effects of RF and EMF exposure and risk information to the public.

The Concerns over Exposure to RF-EMF

Over the past two decades, mobile telecommunication systems have been widely used all over the world. Developing countries such as Malaysia are establishing mobile telecommunications rather than the more expensive fixed-line systems. This wireless technology relies upon an extensive network of fixed antennas, or base stations, relaying information with RF-EMF signals. Over 1.4 million base stations exist worldwide, and the number is increasing significantly with the introduction of third generation technology (WHO, 2006).

As the number of base stations and local wireless networks increases, so does the Radio Frequency from Electromagnetic Fields (RF/EMF) exposure of the population. Recent surveys have shown that the RF/EMF exposures from base stations range from 0.002% to 2% of the levels of international exposure guidelines, depending on a variety of factors, such as the proximity to the antenna and the surrounding environment (WHO, 2010). This is lower than or comparable to RF/EMF exposures from radio or television broadcast transmitters.

Over the past 50 years, extensive research has been conducted into the possible health effects of exposure to many types of radio signals. As of July 2008, there were more than 1000 publications on this topic in the World Health Organization (WHO) database. Since 1995, more than 20 expert panels and government agencies have examined the scientific evidence, and their consensus is that there are no established health hazards from exposures to radio signals at levels below the 1998 guidelines of the International Commission on Non-Ionising Radiation Protection (ICNIRP). The WHO recommends adoption of the ICNIRP exposure guidelines.

However, concerns persist that RF/EMF exposure from structures used for mobile telecommunications, radars, radio and television broadcasts, and medical and industrial applications could affect people's health. Much of this concern arises because new technologies are introduced without provision of public information about their nature or discussions of the debate within the scientific community about possible health consequences.

Most of the information on RF/EMF is conveyed to the public through the media, notably the press. This information is usually gathered from experts in the RF/EMF field and also the stakeholders or public figures involved directly or indirectly with the issue. During the process of disseminating the information about RF/EMF to the public, recontextualisation occurs. Recontextualisation, in this context, simply means that the scientific discourse (scientific information) is reworded for public consumption. In other words, scientific jargons or technical words will be explained in layman's terms for the public to understand. In the course of recontextualisation, the media also chooses who to quote, what to quote, and how to frame the scientific discourse within the media discourse. This study then seeks to investigate the ways in which the RF/EMF exposure issues are framed in the media reporting of these issues.

Research Methodology

The data for this study comes from 920 articles from five national newspapers in several languages, collected from 1995 until 2012.

Table 1.
Breakdown of data from newspapers

Newspaper	Language	Number of Articles
The Star	English	373
The New Straits Times	English	110
Berita Harian	Malay	121
Harian Metro	Malay	118
Sin Chew Jit Poh	Mandarin	198
Total Number of Articles:		920
Approximate corpus (number of words for data)		460,000 words

The News Straits Times and *The Star* are English language newspapers; *The Star* has the largest circulation in Malaysia, and it has the most articles on this issue. *Berita Harian* is a national broadsheet in the Malay language, while *Harian Metro* is a daily that can be classified as a tabloid. *Sin Chew Jit Poh,* with the second largest number of articles in the issue, is one of the largest circulating Mandarin language dailies in the Chinese-speaking community in Malaysia.

The analytical framework of the study focuses upon the analysis of the thematic frames in the reporting of the RF/EMF issue. Frame analysis is a method used to analyse how people understand situations and activities (Goffman, 1974), focusing specifically upon the process by which the media often "defines and constructs a political issue or public controversy" (Nelson, Oxley, & Clawson, 1997: 221). In simple terms, frames are the principles by which theories, facts, and information are selected, emphasised, and presented in order to represent a particular issue. In this study, we focused upon identifying which thematic frames existed and examining which frames were significant.

In order to identify the frames that exist in the media texts in the data, we employed the following steps:

1) Identified repeated patterns in the news coverage of the RF/EMF issue
2) Examined broad forms of emphasis or selection such as headlines and placement of the articles
3) Identified master narratives or themes – what is being covered and what is not being covered
4) Examined linguistic and stylistic clues such as language choice, quotes, etc.

The data was coded to identify the following thematic frames:

- Information
  - ➢ General information
  - ➢ Scientific information
  - ➢ Information on general policy and regulation
  - ➢ Information on benefits of telecommunication technology, towers, etc.
  - ➢ Business information
- Complaints and concerns
  - ➢ Voicing health complaints and concerns
  - ➢ Voicing safety complaints and concerns
  - ➢ Addressing health complaints and concerns
  - ➢ Addressing safety complaints and concerns
  - ➢ Providing reassurance about concerns
  - ➢ Dismissing concerns and complaints
  - ➢ Organizing anti-tower actions
  - ➢ Expressing satisfaction/joy in action taken
- Focus upon communication towers
  - ➢ Reporting illegal towers and structures
  - ➢ Addressing illegal towers and structures
- Accountability and responsibility
  - ➢ Holding telecommunication companies accountable
  - ➢ Shifting responsibility to other bodies

In order to ensure the inter-coder reliability of the coding process, six coders, working in teams of two, coded a sample of the data to ensure that there would be agreement in the coding and analysis. Articles from all the newspapers (120 articles, or approximately 13 percent of the total data) were coded in the inter-coder reliability check. We used Holsti's formula, which states that the number of coding decisions agreed upon divided by the total number of decisions made must be above 80 percent in order to be reliable. We calculated the mean inter-coder reliability of our sample analysis at 96 percent, which is significantly higher than the established minimum acceptable rate of 80 percent (Poindexter and McCombs, 2000).

Once the initial sample was coded and the reliability established, the rest of the data was coded. When the coding was completed, the data was then checked randomly in order to vet the coding and eliminate any ambiguity and errors.

Findings and Discussion

While the study analyzed four major thematic frames of information, complaints, and concerns, this paper focuses upon only two of those four frames—information, and complaints and concerns.

Frame I: Information

Overall, general information on the issue is significantly emphasized in all the newspapers, no matter which language the news is reported in. *The Star* seems to focus significantly on all the different information-giving aspects of the issue—general, scientific, policy, and business.

The Mandarin newspaper, *Sin Chew Jit Poh,* seems to favour scientific information more than the other newspapers, with 113 instances of the reporting of the frame. This could be linked to the demand for scientific fact from the Chinese-speaking community of readers. *Sin Chew Jit Poh* also seems to pay the least attention to business information compared to the other dailies, indicating that the daily's coverage of the issue is not driven by market and business practices associated with telecommunication towers, but rather the social practices associated with the issue.

Harian Metro seems to give the least coverage to scientific information as well as policy and regulations among the five major dailies, with only 16 instances of the frame discovered in all of its 118 articles on the matter. This could be linked to the tabloid nature of the daily, where the coverage of the stories is driven by sensational elements rather than what is perceived as dry and dense information.

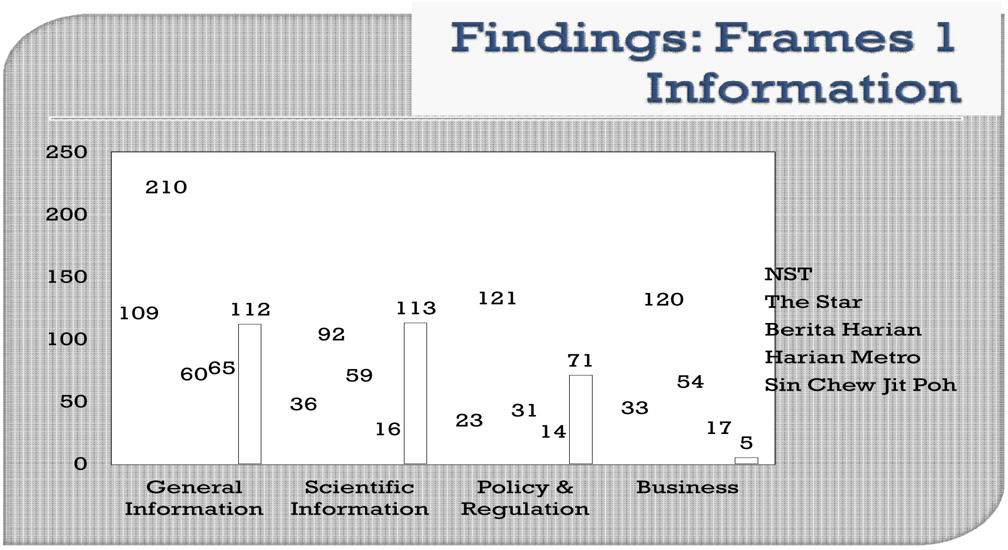

Figure 1. Information frames in the news articles

Frame 2: Complaints and Concerns

The findings for this thematic frame are organized in a two-fold manner:

a. Reporting of complaints and concerns from residents
b. Reporting of authorities addressing the complaints and concerns

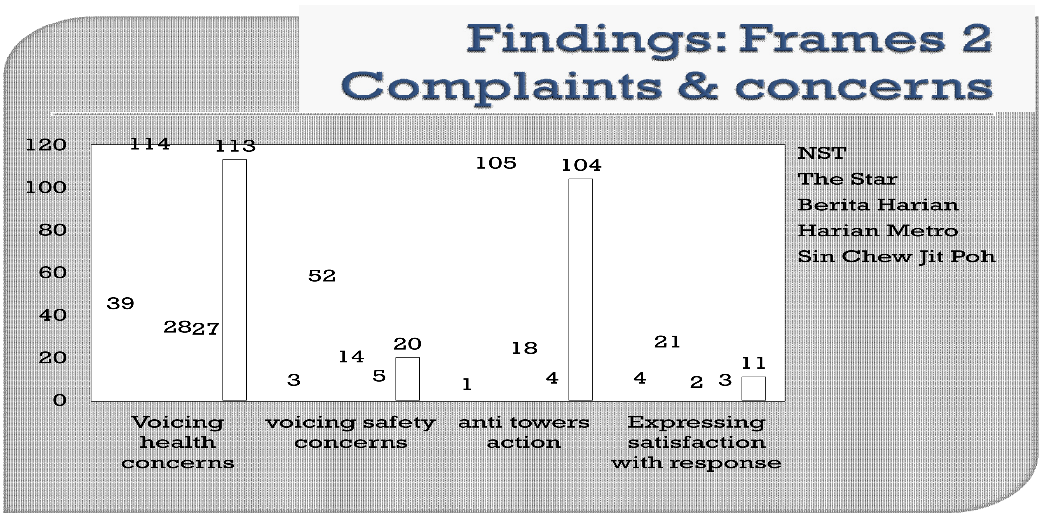

Figure 2. Reporting of complaints and concerns from residents

Although all five newspapers pay significant attention to the complaints and concerns of residents regarding the risk of exposure and regarding residents' fears of telecommunication base towers, *The Star* and *Sin Chew Jit Poh* focused the most upon the news coverage of this frame. In general, the reporting of health concerns greatly outweighs the reporting of safety concerns, indicating the newspapers' perception that health risks are of greater concern to the residents than the structural safety of the towers.

The Star and *Sin Chew Jit Poh* also focused the most upon reporting anti-tower actions taken by residents (protests, sit-ins, letters, etc.). Interestingly, *The New Straits Times* seems to exclude reporting the residents' anti-tower actions and events; there is only one instance of this frame in 110 articles. This choice is significant because it construes the residents as passive victims rather than active protesters.

None of the dailies give much prominence to reporting the satisfaction of residents at the response of the authorities to their complaints. The media's choice of giving more prominence to the emotions of fear and concern in constructing the topic points speaks to the underlying ideology that newspapers select the stories that they think will be most interesting to their audiences, and in the case of the RF/EMF issue, negative coverage is significant for its "tellability" (Stamou, 2001: 653) because it sells the story better to the audience (Slovic, 1993).

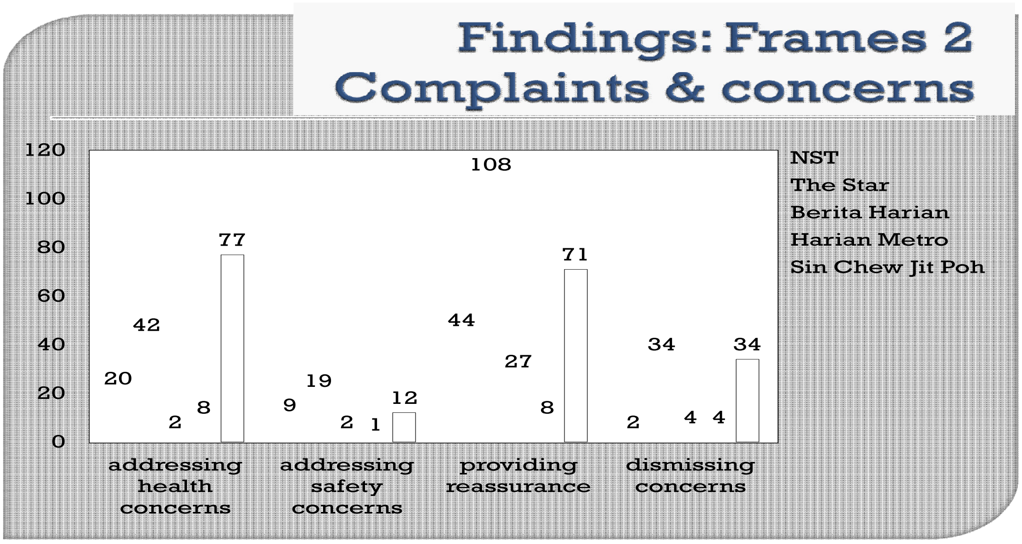

Figure 3. Reporting about how the authorities address the complaints and concerns

In general, the coverage of how health concerns are addressed greatly outweighs that of safety concerns. This is related directly to the greater prominence of the reporting of health concerns rather than safety concerns (see Table 3 above).

Sin Chew Jit Poh seems to emphasize the reporting of the authorities directly addressing the health concerns of the residents more than the rest of the newspapers. *The Star,* on the other hand, seems to give prominence to the reporting of the authorities in providing reassurances to the residents about the issue.

In terms of covering the authorities' dismissal of the residents' concerns and complaints, the *New Straits Times*, *Berita Harian,* and *Harian Metro* all underplay the reporting, while both *The Star* and *Sin Chew Jit Poh* give more space for such coverage. This is significant because it could point towards the reluctance of the former dailies to associate themselves with any news that seems to undermine the residents' concerns. *The Star* and *Sin Chew Jit Poh* seem to give more space to the condescending dismissal of the residents' concerns by the authorities, which could in turn serve to marginalize the residents because they feel their concerns are not being dealt with seriously by the authorities involved.

Conclusions

Although the findings of this study are only partially discussed in this paper, from the two major thematic frames discussed, it can be concluded that different papers stress different frames due to their subscription to a set of particular and different ideologies. For example, *Sin Chew Jit Poh*, a paper that that has a proactive and socially aware readership, focuses more on the residents' concerns. *The New Straits Times*, being a national broadsheet that is often seen as the voice piece of the government, downplays the issue of RF/EMF, giving it less coverage than the other papers. *Harian Metro,* true to its tabloid nature, tends to follow the same report over several months and also actually concretizes in detail the symptoms of affected residents.

However, in order to draw meaningful and valid conclusions, further consideration needs to be given to the coverage of the other frames as well as the coverage of the social actors involved in reporting the RF/EMF exposure issue.

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Relationships of the Socio-economic and Health Care Factors towards Satisfaction in Daily Life of the Thais in Urban Areas

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Abstract

This descriptive study evaluated the satisfaction in daily life of the Thai people who lived in the urban area as well as to study the relationships of socio-economic and health care factors towards their satisfaction in daily life. The samples, using accidental sampling technique, were 667 Thai people aged 20 years and above who lived in Bangkok Metropolitan and Saraburi Province. Questionnaire ($\alpha = 0.86$) was used to collect data on satisfaction in daily life of the samples.

The results revealed that the samples aged between 20-79 years (mean 36.7, S.D. 12.6), were females (61.9%), university degree holders (61.8%) and single (47.8%). It was found that their satisfaction in daily life was at a high level (mean 3.21, S.D. 0.53) with the highest mean score on the satisfaction on the family life, followed by the satisfaction on the housing facilities and food. The satisfaction on family income had the lowest mean score at 2.99 (S.D. 0.78), which was the moderate level of satisfaction. The chi-square test revealed that gender, age, education, family income, having children in the family, number of member in the family, car and house ownerships, health care, and doctor visit had statistical significant relationship with satisfaction in daily life at 0.05. It can be concluded that satisfaction in daily life of the Thai people in the urban areas depend on the socio-economic status and health care therefore the policy and measures on raising income and health promotion should be formulated to increase the level of life satisfaction among the urban Thais.

Keywords: Socio-economic, health care, life satisfaction

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Introduction

Daily living of urbanized Thai people often affected by pollutions, social, economic, and technological changes that compromised health and life security. Previous study that examined impacts of economic development on life satisfaction of Thai citizens (Apinanmahakul & Mungsawad, 2013) found significant impacts of economic factors such as employment, income, household expenses, and high cost of living on life satisfaction. However, there are other factors that influence life satisfaction in Thailand as well especially environmental issue, the expression of political opinions, access to healthcare utilities, work satisfaction, family relationships, and lived in community for a long time. The results of this study support the notions of life satisfaction in developing country not only economic growth, but also the social, political, environmental factors as part of well-being, and quality of life in Thailand. Factors that influence life satisfaction can divide into two categories: 1) personal characteristics such as gender, age, education, marital status, and 2) social, economic, and politic. Understanding the context of social and economic factors that influence life satisfaction will benefit in developing strategies to meet the needs of Thai society better. However, this study did not study the life satisfaction and related factors among residents in urban Thailand. Therefore, researchers are interested in determining satisfaction in life and factors related to the way in promoting satisfaction in life. This research focuses on exploring satisfaction in daily life and continues to explore its relationship with socio-economic and health factors.

Objectives

1. To evaluate the satisfaction in daily life of the Thai people who lived in the urban area.
2. To study the relationships of socio-economic and health care factors towards their satisfaction in daily life

Methodology

This descriptive research forms part of the cross-country survey on satisfaction in daily life of the Asian people aged over 20 years, who live in the urban area. For this Thai part, this research has applied purposive random sampling in selecting Bangkok and Saraburi as the location and applied accidental sampling of 667 samples from offices, factories, schools, department stores and other urban areas.

Questionnaire has been utilized to collect data. Part one of the questionnaire surveys the general information of the sample such as gender, marital status, income, education, occupation, number of the family member, children, looking after health and consulting with medical profession. Part two of the questionnaire then asked daily life satisfaction in 7 issues, namely: food, residence, income, marital life, relationship with others, health and occupation. Responses are categorized in four: Very satisfied, satisfied, dissatisfied and very dissatisfy. The reliability is equal to 0.86.

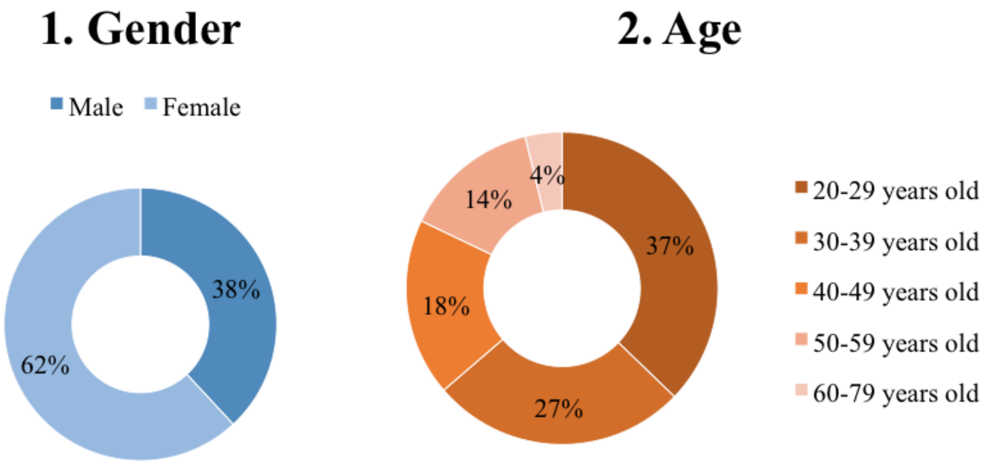
This research has been surveyed in August 2013 with 700 questionnaires produced, but 677 questionnaires was fully answered or approximately 95.3%, hence valid for this research. The results have been processed with statistical analysis software package.

Results

The results of this study are presented in two stages, namely: 1) The personal data of the samples and 2) The satisfaction of the sample's daily life.

1. Personal data

1.1 Socioeconomic status



In this survey, the samples consisted of mainly male of 62 percent, while female of 38 percent as presented in chart 1.

In regards to the age of the respondents, chart 2 reveals that samples being between 20-29 years old forms the biggest group of 37 percent, subsequent by samples between 30-39 years old forms 27 percent and samples between 40-49 percent forms 18 percent respectively. Samples being over 60 years old are however the smallest portion of 4 percent.

Table 3.
Occupation of the samples

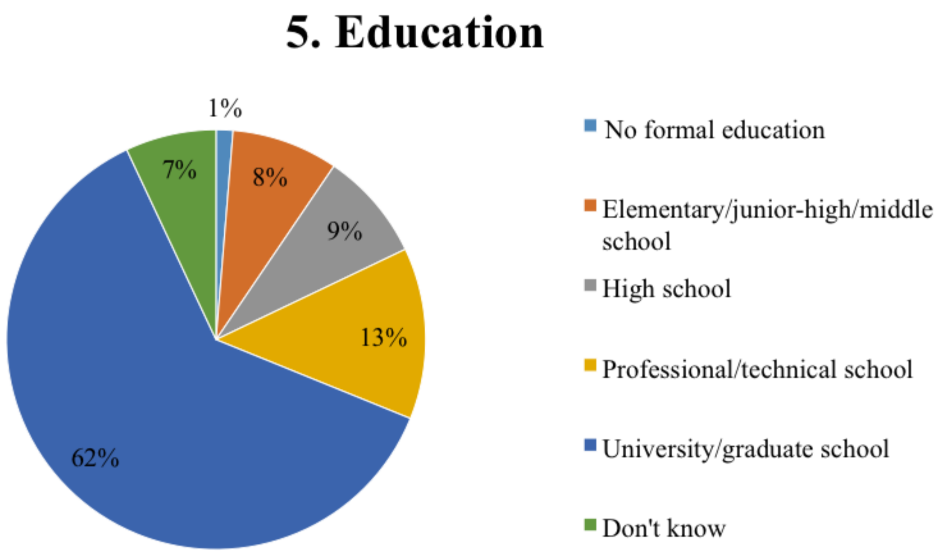
Occupation of the samples	Percent
Self-employed in agriculture, forestry or fisheries	1.2
Business owner in mining or manufacturing industry of an organization with up to 30 employees	0.3
Business owner of a retail organization with up to 30 employees	2.8
Vendor or street trader	9.9
Business owner or manager of an organization with over 30 employees	2.4
Self-employed professional (self-employed doctors, lawyers, writers, etc.)	2.5
Senior manager (company director, no lower in rank than a manager of a company section in a company with 300 or more employees, or a manager of a department in a company with less than 300 employees)	3.3
Employed professional or specialist (hospital doctors, employed lawyers, engineers, etc.)	11.2
Clerical worker	27.4
Sales	8.1
Manual worker (including skilled and semi-skilled)	4.8
Driver	1.2
Other worker	6.9
Homemaker	1.3
Student	10.5
Retired	2.4
Unemployed	2.8
Don't know	0.7

Amongst various types of occupations, table 3 presents samples working, as clerical workers are the biggest group of respondents of 27.4 percent, then as employed professionals or specialists as the next group of 11.2 percent and students of 10.5 percent respectively. While, 0.7 percent of the sample cannot be identified or have not responded.

Table 4.
Occupation of the head of the household

Occupation of the head of the household	Percent
I am the head of the household	43.0
Agriculture/Fishery	5.4
Self-employment/Commerce and Industry	15.1
Independent profession	6.1
Manager	3.1
Clerical worker/Engineer	14.1
Manual worker	7.9
Unemployed	5.1

In the question regarding to the occupation of the head of the household, the majority of the respondents are the head of the household (43 percent), which the occupation can be referred back to table 3. If the respondent is not the head of the household, the head of the household are mostly self-employed or in commerce/industry (15.1 percent) and clerical worker or engineer (14.1 percent), while the least responded occupation is manager (3.1 percent).



In regards to the education background of the respondents, the majority of the samples have university/graduate background (62 percent).

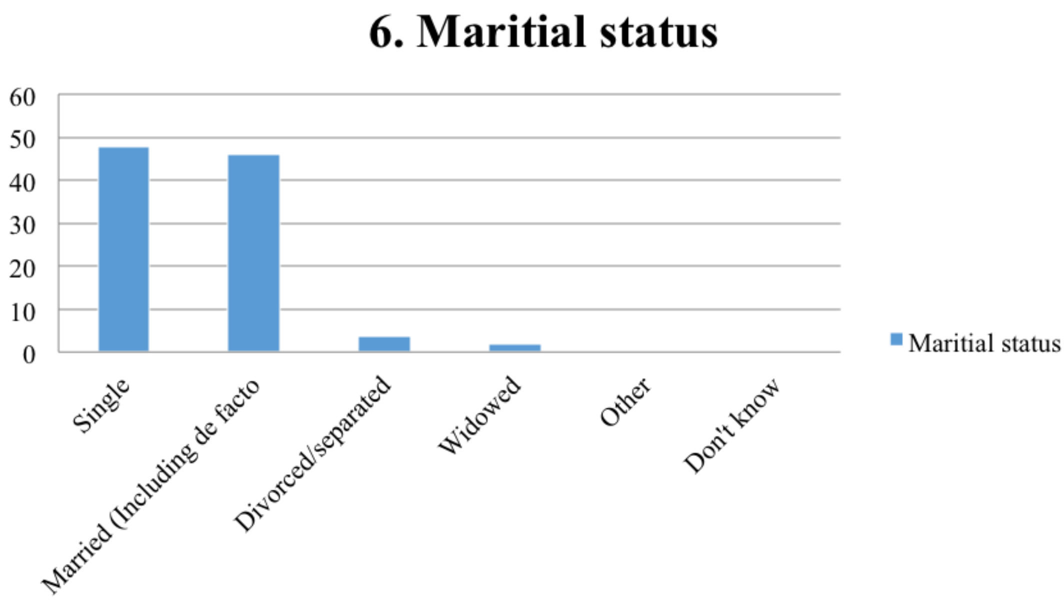
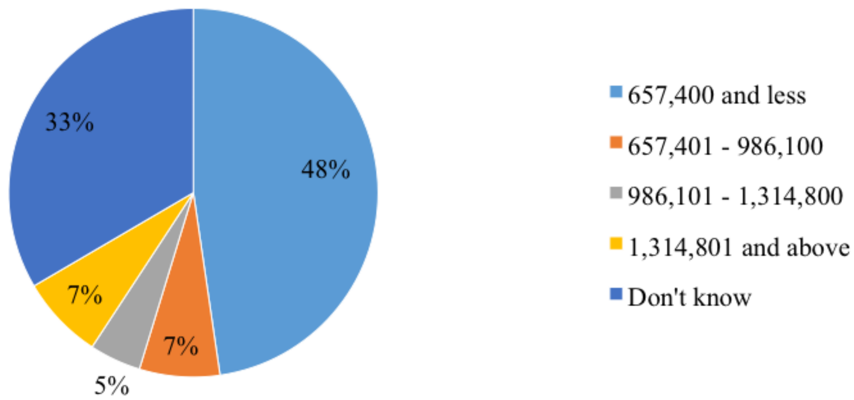


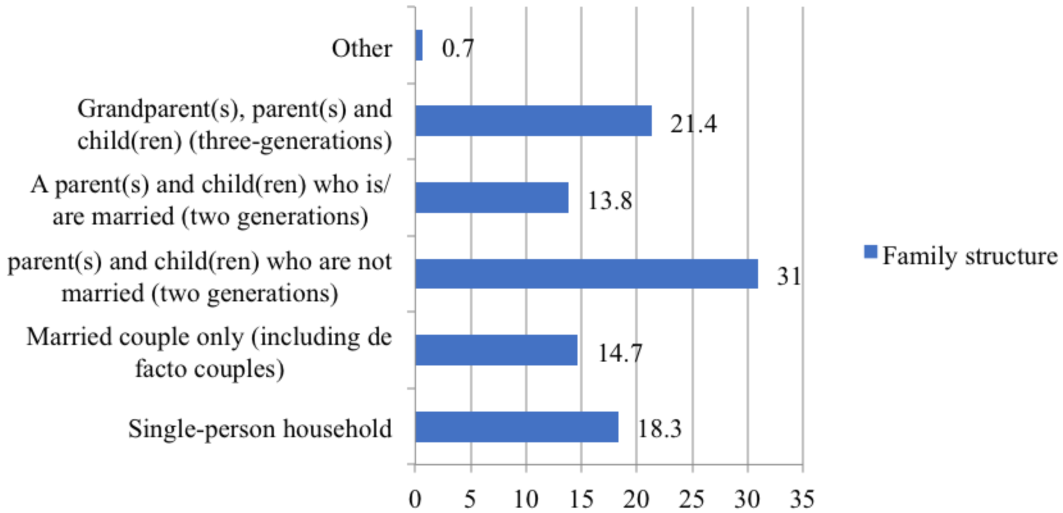
Chart 6 illustrates the marital status of the respondents. The proportion of the single- and married-respondents are in principle balanced (47.8 percent and 45.9 percent).

7. Total gross annual income of the household (Baht)



The total gross annual income of the household has been shown in chart 7, where the majority or 48 percent of the respondents earn less than 657,400 Baht. The second group majority of respondent's amounts to 33 percent have not answer this question. The smallest group of sample receives between 986,101 to 1,314,800 Baht accounted for 5 percent.

8. Family structure



Family structure of the respondents has been exhibited in chart 8, where two generations family is the largest group (31 percent), follow by the three generations family (21.4 percent). Other form of family structure amounts to 0.7 percent is the smallest group.

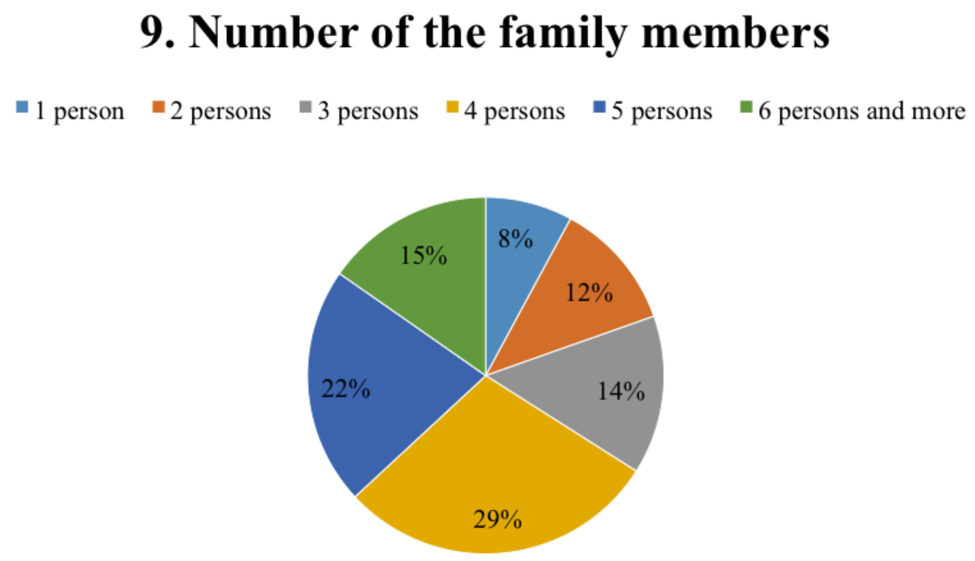
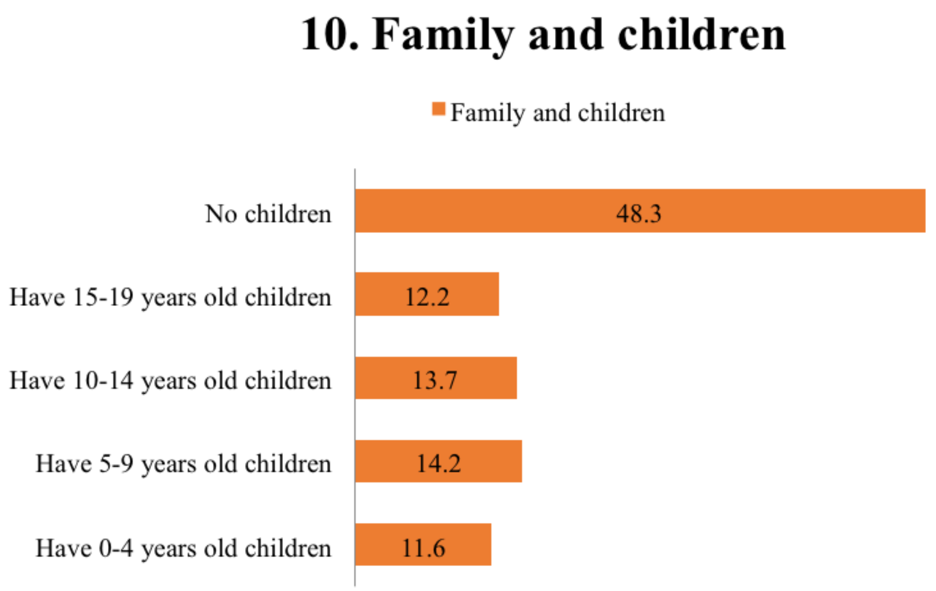
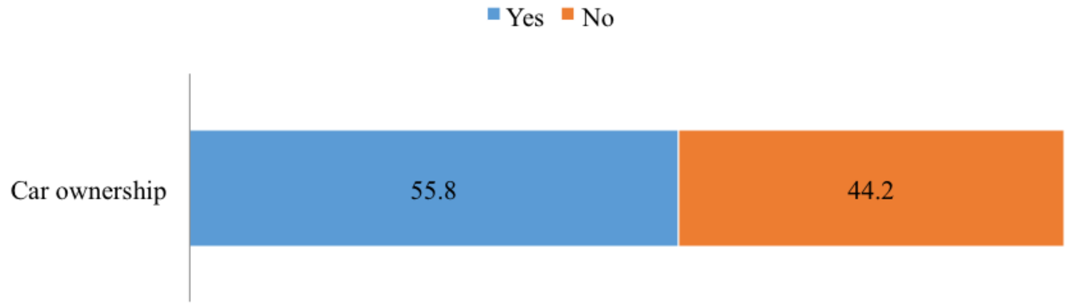


Chart 9 illustrates the number of the family members of the respondents. 4 persons family forms the biggest group of the sample (29 percent), follow by 5 person family (22 percent). 1 person family is the smallest group (8 percent).



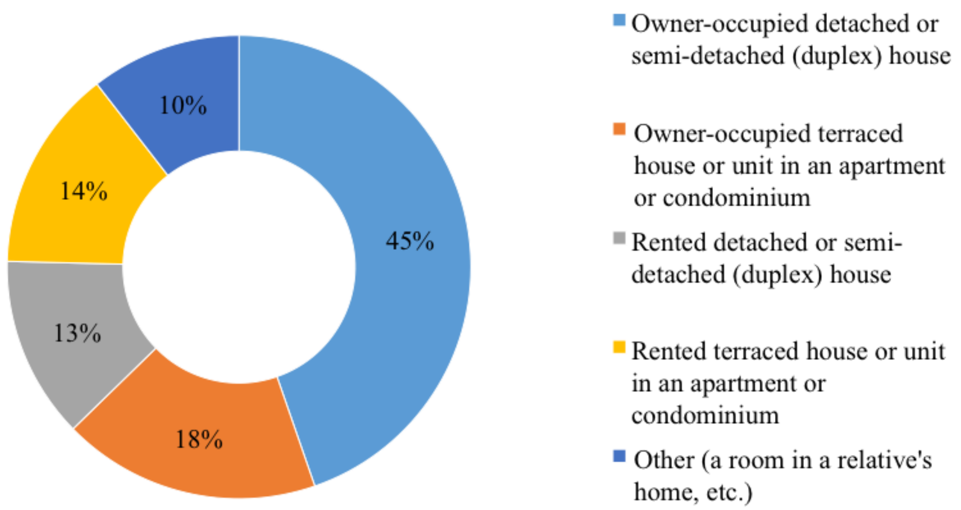
In view of the family and children, the proportion of the respondents with children and respondents with no children remains balanced (51.7 percent and 48.3 percent). For those with children, the proportion of the children's age between 0-4 years old, 5-9 years old, 10-14 years old and 15-19 years old has also remain balanced (11.6 percent, 14.2 percent, 13.7 percent and 12.2 percent).

11. Car ownership



Car ownership of the respondents has been shown in chart 11, most of the sample owns at least a car (55.8 percent).

12. Current residence



The current residence of the respondents has been exhibited in chart 12. Most of the sample lives in owner-occupied detached or semi-detached (duplex) house, which amounts to 45 percent. Subsequently, 18 percent of the sample lives in owner-occupied terraced house or unit in an apartment or condominium. While, the least of the sample accounted to 10 percent live in other form of residence.

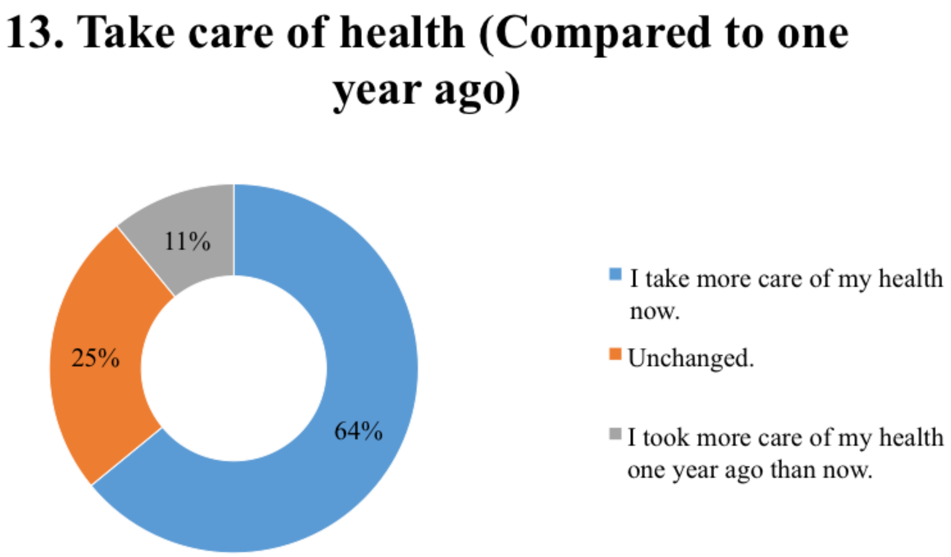
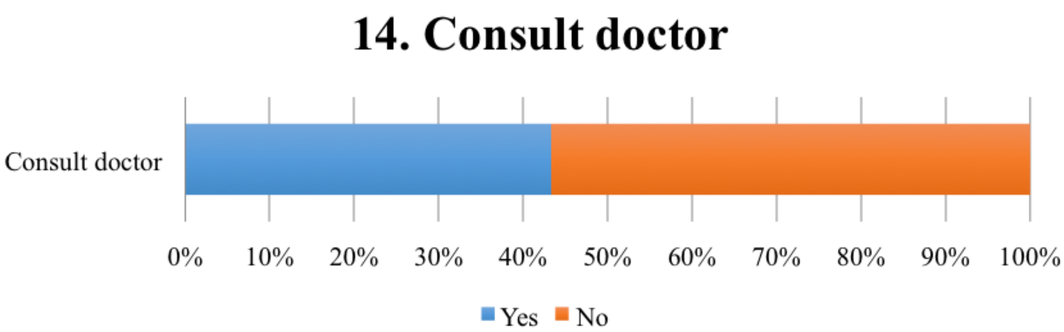


Chart 13 exhibits that most of the respondents have taken more care of their health compared to the previous year (64 percent). While 25 percent of the samples have not change their behavior, 11 percent of the samples however have taken less care of their health.



As to the behavior to consult medical doctor of the respondents, chart 14 illustrates that most of them do not consult doctor (56.7 percent).

2. Satisfaction in daily life

Table 15.
Satisfaction in daily life

Variables	Mean	S.D.	Satisfaction level	Satisfied		Somewhat satisfied		Somewhat dissatisfied		Dissatisfied	
				n	%	n	%	n	%	n	%
Overall satisfaction in daily life	3.21	0.53	High								
Housing	3.33	0.71	High	311	46.6	275	41.2	74	11.1	7	1.0
Household Income	2.99	0.78	Moderate	184	27.6	312	46.8	154	23.1	17	2.5
Health	3.03	0.76	High	189	28.3	319	47.8	147	22.0	12	1.8
Family life	3.39	0.68	High	328	49.2	285	42.7	43	6.4	11	1.6
Food	3.32	0.70	High	303	45.4	277	41.5	84	12.6	3	0.4
Human Relations	3.30	0.65	High	265	39.7	339	50.8	59	8.8	4	0.6
Job	3.12	0.77	High	236	35.4	282	42.3	142	21.3	7	1.0

*High satisfaction = 3.00-4.00, Moderate = 2.00-2.99, Low satisfaction = 1.00-1.99

Overall, the samples were satisfied with their daily life at high level (mean = 3.21, SD = 0.53) with the highest mean score on satisfaction in family life (mean = 3.39, SD = 0.68) followed by satisfaction in housing (mean = 3.33, SD = 0.71), both were at high level of satisfaction. The lowest mean score was on household income (mean = 2.99, SD = 0.78), which was at moderate level of satisfaction.

3. The relationship between overall daily life satisfaction level and socioeconomic status

Comparisons of factors contributing to satisfaction in the samples' daily life using Chi-square revealed that nine factors had statistical relationship with daily life satisfaction at significant level 0.05. These comprised of gender, age, education, gross income of the household, having children in the household, number of family member, own car, current residential type, and taking care of health. Only marital status factor had no statistical significance relationship with the samples' daily life satisfaction.

Table 16.
Shows relationship between overall daily life satisfaction level and socioeconomic status

Socioeconomic status	Overall daily life satisfaction				Chi-square	p-value
	Dissatisfied		Satisfied			
	n	%	n	%		
Gender						
Male	87	48.9	167	34.2	12.0	.001
Female	91	51.1	322	65.8		
total	178	100.0	489	100.0		
Age (mean 36.7, S.D. 12.6)						
20-29 years old	60	33.7	188	38.4	10.01	.040
30-39 years old	55	30.9	122	24.9		
40-49 years old	37	20.8	86	17.6		
50-60 years old	16	9.0	78	16.0		
61-79 years old	10	5.6	15	3.1		

Socioeconomic status	Overall daily life satisfaction				Chi-square	p-value
	Dissatisfied		Satisfied			
	n	%	n	%		
total	178	100.0	489	100.0		
Education						
No formal education / Elementary school/junior high school/middle school	14	8.8	50	10.9	34.37	.000
High school	12	7.5	44	9.6		
Professional school/technical school	45	28.1	43	9.3		
University/graduate school	89	55.6	323	70.2		
total	160	100.0	460	100.0		
Marital status						
Single	81	45.5	238	49.1	1.45	.484
Married (Including de facto marriage)	84	47.2	222	45.8		
Divorced/separated/ Widowed	13	7.3	25	5.2		
total	178	100.0	485	100.0		
Total gross annual income of household (bath)						
657,400 and less	98	83.1	219	67.0	13.25	.001
657,401 - 986,100	11	9.3	36	11.0		
986,101 and above	9	7.6	72	22.0		
total	118	100.0	327	100.0		
Family include children						
Have no children	112	62.9	214	43.8	19.17	.000
Have children	66	37.1	275	56.2		
total	178	100.0	489	100.0		
Number of your family members						
1 person	14	7.9	39	8.0	26.37	.000
2 persons	12	6.7	66	13.5		
3 persons	17	9.6	79	16.2		
4 persons	44	24.7	150	30.7		
5 persons	48	27.0	96	19.6		
6 persons and more	43	24.2	59	12.1		
total	178	100.0	489	100.0		
Have a car for own use						
Yes	81	45.5	291	59.5	10.37	.001
No	97	54.5	198	40.5		
total	178	100.0	489	100.0		
Current residence						
Owner-occupied detached or semi-detached (duplex) house	45	25.3	253	51.7	69.13	.000
Owner-occupied terraced house or unit in an apartment or condominium	24	13.5	96	19.6		

Socioeconomic status	Overall daily life satisfaction				Chi-square	p-value
	Dissatisfied		Satisfied			
	n	%	n	%		
Rented detached or semi-detached (duplex) house	47	26.4	38	7.8		
Rented terraced house or unit in an apartment or condominium	36	20.2	58	11.9		
Other (a room in a relative's home, etc.)	26	14.6	44	9.0		
total	178	100.0	489	100.0		
Take care of health						
take more care of health now.	27	15.2	176	36.0	34.88	.000
Unchanged.	86	48.3	218	44.6		
took more care of health one year ago than now.	65	36.5	95	19.4		
total	178	100.0	489	100.0		
Consult doctor						
Yes	68	38.2	221	45.2	2.60	.107
No	110	61.8	268	54.8		
total	178	100.0	489	100.0		

Discussion

This study shows how happy in daily life of the Thais living in the urban areas where advance of technology, foreign cultures, economics turbulence, etc. are attacking daily livings and ways of life of the people and society. This scenario is seen everywhere to people from all walks of life.

Majority of the samples were female (65.8%) , age between 20-29 years old (33.7%) , university graduates (55.6%), marriage (47%), had 657,400 and less of annual income (83.1%), have no children (62.9%), with 5 persons in the household (27.0%), rented detached or semi-detached (duplex) house (26.4%) did not change how they care for personal health compare to last year (45.3%) and not consult doctor (61.8%).

Despite the rank at 165 among all countries in the world on the Satisfaction Index in 2006 (University of Leicester (27 July, 2006), the research findings revealed that Thais in urban areas had high level of daily life satisfaction (mean = 3.21, SD = 0.53) in general. Looking closely to the factors that could affect their life satisfaction. Data revealed that despite enduring amidst economic and political crises, Thais in the urban areas still had high level of daily life satisfaction in almost every dimension of lives except the household income factor which was at moderate level. The highest mean score of daily life satisfaction reported by the sample is the family life factor (mean=3.39, SD=0.68) followed by housing factor (mean=3.33, SD=0.71).

The data on life satisfaction of the people in urban area revealed that the samples were satisfied with life in general, in physical health, very satisfied with spouse and children relationship, and neither satisfied nor not satisfied with economic status. This probably due to the fact that majority of the samples were younger group therefore they did not have much health problem and enjoy life. However, the moderate level of satisfaction on their income may due to the fact that at younger age their income were still climbing the ladder and could not earn more as much as they wanted to. It should be noted that the social factors, family life and human relations remain major sources of happiness (mean = 3.39, SD= 0.68 and mean = 3.30, SD=0.65 respectively). However, other factors such as housing and food are also closely important. The study conducted after the country encounter the great flood (in 2011) revealed that consumer well-being in terms of satisfaction with material possessions had a positive impact on life satisfaction after the flood crisis, along with optimism and education (Leelakulthanit, Orose and Hongcharu, Boonchai, 2012).

These reflects that no matter how many ups and down they were facing family and good relationship still matter that also found in a research conducted by the Gallup poll (Rath and Harter, 2010) reveals that people that have at least three or four very close friends are healthier, have higher wellbeing, and are more engaged in their jobs. The findings in this study are in the same direction of the result of reported in the "*Life Satisfaction of the Older Thai: Findings from the Pilot HART* conducted in 2009 by Dararatt Anantanasuwong and Udomsak Seenprachawong (2012).

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Factors Effecting Aggressive and Violence Behaviors and Learning Behavior among High School Students in Bangkok

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Abstract

This study determined factors affecting the aggressive and violence behaviors and learning behavior among high school students in Bangkok. Participants were 534 high school students. They completed 10-item each to measure learning behavior, aggressive and violence behaviors, alcohol, cigarette, and substances uses, gambling, sexual involvement and the 21-item Game Addiction Scale and in July - August 2013. Data was analyzed using frequency distribution, percentages, mean, standard deviation, T-test, F-test, Pearson's product moment correlation and regression analysis. The samples comprised of 49.2 % of males as against 50.8 % of females, majority of them were the 11th graders (49.0%), had GPA at 2.51-3.00 (37.9%) and had family income between 25,001-40,000 baht per month (35.5%).

Findings revealed that the samples had a good learning behavior (mean = 3.30, SD = 0.56), and lowest level of aggressive and violence (mean=1.58, SD = 0.62). Overall they were found to have lowest level of drinking, smoking and substances uses (mean = 1.48, SD = 0.72), gambling (mean= 1.55, SD =0.77) and game addiction (mean = 1.60, SD = 0.59), and low level of sexual behaviour (mean=1.68, SD = 0.62).

It was found that aggressive and violence behaviors had strong negative correlation with learning behavior (r = -0.87), alcohol, cigarette and substances uses (r = 0.90), gambling (r = 0.83) and sexual involvement (r = 0.86) in positive direction. Weak correlation was found between game addiction and aggressive and violence behaviors (r = 0.15).

Likewise, learning behavior has strong negative correlation with alcohol, cigarette and substances uses (r = -0.85), gambling (r = -0.75) and sexual involvement (r = - 0.79) and weakly correlated with game addiction (r = -0.15).

Overall, alcohol, cigarette and substances uses, gambling, sexual involvement and game addiction had significant impact on aggressive and violence behaviors (84.4%) and learning behavior (73.6%) among Thai high school students.

For aggressive and violence behaviors, the significant predictors were alcohol, cigarette and substances uses, gambling, sexual involvement and game addiction.

Key words: Learning behaviour; Game addiction; Bangkok high school students; Alcohol, cigarette and substances uses; Gambling; Aggressive and violence behaviors; Sexual involvement

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Introduction

The scholastic performance of the students reflects the quality of future population of the nation. The society is changing at an accelerating pace to keep up with technological advancements. High school students especially in the metropolitan area are facing with various socio-economic factors, which can become a pathological problem that affects health, well-being, increase aggressive and violence behaviors and having low scholastic achievement of the students. The U.S. Centers for Disease Control and Prevention indicated that the leading causes of morbidity and mortality among youth and adults in the United States are related to six categories of priority health-risk behaviors: 1) behaviors that contribute to unintentional injuries and violence; 2) cigarette use; 3) alcohol and other drug use; 4) sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases (STDs), including HIV infection; 5) unhealthy dietary behaviors; and 6) physical inactivity. These behaviors frequently are interrelated and are established during childhood and adolescence and extend into adulthood. (Youth Risk Behavior Surveillance – United States 2011, 2012)

Student achievement is not simply a matter of what happens in school. Although schools can and do make a significant difference, research has identified numerous factors which affect student success such as school, family individual, social incentives, socio-economic conditions, etc. As far as violence in school is concerned, it is slowly becoming a more and more serious problem, especially violence involving weapons (School violence, n.d.) and gang fights (Sattar, 2013) which are extremely difficult to discover prior to escalation and becoming more and more widespread especially in urbanized areas. Another serious problem concern the use of alcohol and drug (AOD) which typically begins during adolescence and in some cases progresses to adulthood and those who regularly partake in AOD are also more likely to engage in other risky behaviors and contextual factors such as living in urban areas is being responsible for AOD among adolescents (Rukundo, Kibanja and Steffens, 2013).

Objectives

This study determined factors affecting aggressive and violence behaviors and learning behavior of high school students in Bangkok.

Method

This cross-sectional survey was conducted in August 2013. Participants were informed of their right and confidential in protecting personal information. Self-reported questionnaires were administered to students at their school.

Samples

Participants comprised of 535 students conveniently drawn from sample of 10^{th} – 12^{th} graders studied in Bangkok.

Measures

Student self-report questionnaires included (1) personal data that asked gender, grade level, GPA and family income per month, (2) the 50-item behaviors scale comprised of a 4 point scale (never – almost always) statement to measure learning behavior, aggressive and violence behaviors, alcohol/ cigarette/substances uses, gambling and sexual involvement behaviors of the students. The Cronbach's alpha was calculated at 0.94 and (3) the Thai version of game addiction that translated from the 21-item Korean game addiction scale for children & adolescents developed by Kim et al (2009). Students were asked to rate their opinions on 4-point scale (never - almost always) about their problem and difficulty on playing computer or online game during the past year. The scale has good reliability with Cronbach's alpha of .97 (Kwon et al, 2013), and 0.96 in this study.

Data analyses

Descriptive statistics was used to analyze frequency distribution and percentages of demographic data. T-test, F-test, Pearson's correlation coefficient, and Regression analysis were used to test the mean differences and describe the relationships of alcohol, cigarette, and substances uses, gambling, sexual involvement and game addiction on learning behavior and aggressive and violence behaviors of the high school students.

Results

Demographic characteristics

The samples comprised of 49.2 % of males as against 50.8 % of females, majority of them were the 11th graders (49.0%), had GPA at 2.51-3.00 (37.9%) and had family income between 25,001-40,000 baht per month (35.5%), respectively as shown in Figure 1.

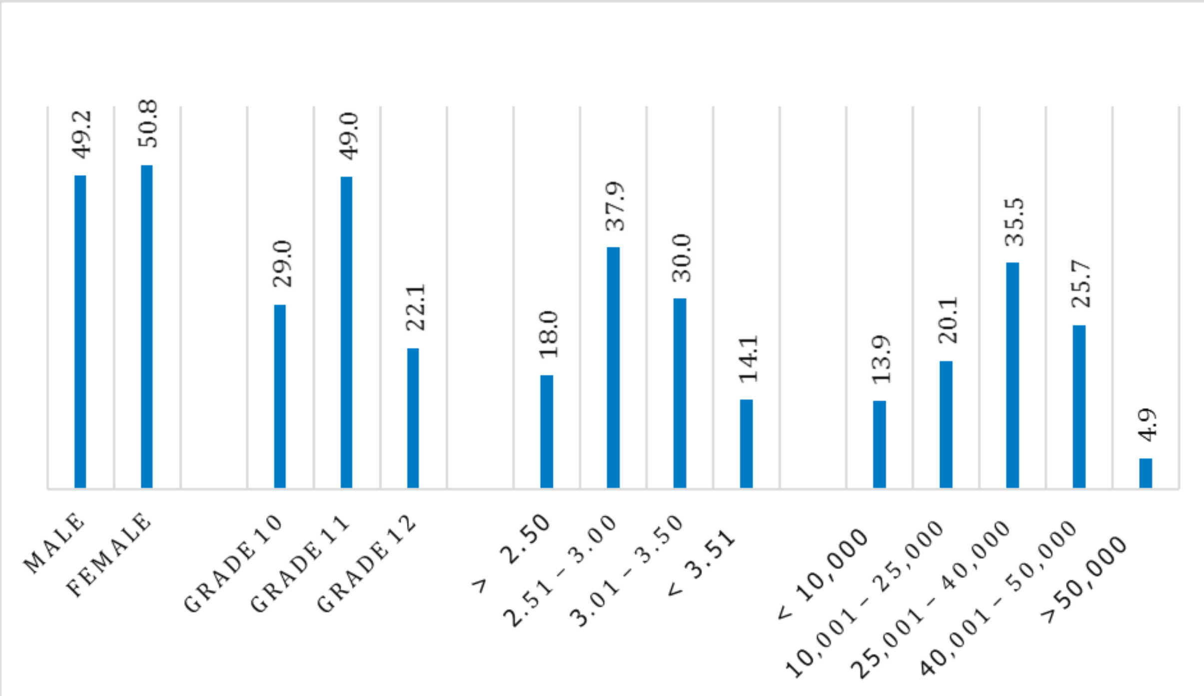

Figure 1. Demographic characteristics of the students according to gender, educational level, GPA, and family income (per month) distributions (n=535)

Learning behavior

It was found that the samples had a good learning behavior (mean =3.30, SD = 0.56). The 11th and 12th graders and samples with GPA at 3.51 and above had a very good learning behavior (mean =3.44, SD =0.32; mean =3.49, SD = 0.42; mean = 3.42, SD = 0.66, respectively). It should be noted that the samples in the higher-grade level they are the better learning behavior they have (mean = 2.93, SD = 0.92 in Grade 10th and mean = 3.49, SD = 0.42 in Grade 12th which is a very good learning behavior). Comparisons of learning behavior mean scores among the samples with different demographic characteristics revealed that statistical difference at significance level .05 were found in grade level and GPA mean scores.

Aggressive and violence

The data revealed that the samples had lowest level of aggressive and violence behaviors (mean = 1.58, SD = 0.63); females are lesser aggressive/violence than males (mean = 1.50, SD = 0.70 and mean = 1.65, SD = 0.62). The samples at lower grade (10th graders), with moderate GPA (2.51-3.00) and belong to higher income family (> 50,000 Baht/month) are more aggressive (mean = 2.05, SD = 0.98; mean =1.66, SD = 0.75; mean = 1.67, SD = 0.69, respectively). Comparisons of aggressive and violence behaviors mean scores among the samples with different demographic revealed that statistical difference at significance level .05 were found in gender and grade level mean scores.

Alcohol, cigarette and substances uses

It was found that the samples had lowest level of drinking, smoking and substances uses (mean = 1.48, SD = 0.72). The only group with higher level of drinking, smoking and use substances is among the 10th graders (mean = 2.05, SD =1.15). Comparisons of alcohol, cigarette and substance uses mean scores among the samples with different demographic characteristics revealed that only statistical difference at significance level .05 was found in grade level mean score.

Gambling

The data revealed that the samples had lowest level of gambling behavior (mean = 1.55, SD = 0.77). It was found that males, the 10th graders and the samples with moderate GPA (2.51-3.00) had higher level of getting involved in gambling behavior (mean =1.62, SD = 0.74; mean 2.08, SD = 1.12; mean = 1.62, SD = 0.68, respectively). Comparisons of gambling behavior mean scores among the samples with different demographic characteristics revealed that only statistical difference at significance level .05 was found in grade level mean score.

Sexual involvement

Overall, the samples have low level of sex involvement (mean = 1.68, SD = 0.66). It should be noted that females, higher-level graders (11th and 12th graders) and the samples in the low-income group had lowest level of sexual behavior risk (mean = 1.58, SD =0.65; mean = 1.55, SD = 0.39; mean = 1.38, SD = 0.46, mean = 1.60, SD = 0.66, respectively). Comparisons of sexual involvement behaviors mean scores among the samples with different demographic characteristics revealed that statistical difference at significance level .05 were found in gender and grade level mean scores.

Game addiction

Overall samples had lowest level of game addiction (mean = 1.60, SD = 0.59) with lesser addiction level among females (mean =1.41, SD =0.45), 11th graders (mean = 1.52, SD =0.55), higher GPA group (mean = 1.52, SD = 0.55 for GPA 3.01-3.50 group and mean = 1.40, SD = 0.41 for GPA >3.51 group) respectively. It should be noted that the samples in the higher income family (>50,000 Baht/month) had higher level of game addiction (mean = 1.94, SD = 0.87). Comparisons of game addiction mean scores among the samples with different demographic characteristics revealed that statistical difference at significance level .05 were found in gender, GPA, and family income mean scores.

Table 1 showed mean scores and levels of learning behavior, aggressive and violence, alcohol/cigarette/substances uses, gambling, sexual involvement and game addiction behaviors of students.

Table 1.
Level of Learning behavior, Aggressive and Violence, Alcohol and Substances Use, Gambling, Sexual Involvement and Game Addiction Behaviors of Students and Comparison of Mean Differences According to Demographic Characteristics

Demographic characteristics	Learning behavior				Aggressive and Violence				Alcohol/Cigarette/ Substance Uses			
	mean	**SD**	**Level***	**T-test (*p*-value)****	**mean**	**SD**	**Level***	**F-test (*p*-value)****	**mean**	**SD**	**Level***	**F-test (*p*-value)****
Gender (n=535)				.088				.007*				.088
Male	3.25	0.59	Good		1.65	0.62	Low		1.53	0.72	Lowest	
Female	3.35	0.65	Good		1.50	0.70	Lowest		1.42	0.79	Lowest	
Grade (n= 535)				.000*				.000*				.000*
Grade 10th	2.93	0.92	Good		2.05	0.98	Low		2.05	1.15	Low	
Grade 11th	3.44	0.32	Very good		1.41	0.30	Lowest		1.25	0.28	Lowest	
Grade 12th	3.49	0.42	Very good		1.31	0.35	Lowest		1.20	0.28	Lowest	
GPA (n= 533)				0.10*				.109				.081
< 2.50	3.21	0.50	Good		1.54	0.53	Lowest		1.47	0.58	Lowest	
2.51-3.00	3.23	0.67	Good		1.66	0.75	Low		1.57	0.85	Lowest	
3.01-3.50	3.39	0.59	Good		1.51	0.61	Lowest		1.38	0.72	Lowest	
>3.51	3.42	0.66	Very good		1.51	0.69	Lowest		1.40	0.76	Lowest	
Family income (Baht/ month) (n= 533)				.657				.951				.746
>10.000	3.32	0.68	Good		1.59	0.69	Lowest		1.46	0.84	Lowest	
10,001-25,000	3.32	0.56	Good		1.55	0.57	Lowest		1.44	0.66	Lowest	
25,001-40,000	3.33	0.57	Good		1.56	0.64	Lowest		1.44	0.70	Lowest	
40,001-50,000	3.23	0.71	Good		1.58	0.75	Lowest		1.55	0.85	Lowest	
<50,000	3.25	0.63	Good		1.67	0.69	Low		1.50	0.84	Lowest	
Total	3.30	0.56	Good		1.58	0.63	Lowest		1.48	0.72	Lowest	

* 1.00-1.60 = very bad/lowest, 1.61-2.20 = bad/low, 2.21-2.80 = moderate, 2.81-3.40 = good/high, 3.41-4.00 = very good/very high
** $p < 0.05$ Level

Table 1 (Cont.)

Level of Learning behavior, Aggressive and Violence, Alcohol and Substances Use, Gambling, Sexual Involvement and Game Addiction Behaviors of Students and Comparison of Mean Differences According to Demographic Characteristics

Demographic characteristics	Gambling				Sexual involvement				Game addiction			
	mean	**SD**	**Level***	**F-test (*p*-value)****	**mean**	**SD**	**Level***	**F-test (*p*-value)****	**mean**	**SD**	**Level***	**F-test (*p*-value)****
Gender (n=535)				.059				.001*				.000*
Male	1.62	0.74	Low		1.78	0.65	Low		1.76	0.66	Low	
Female	1.49	0.84	Lowest		1.58	0.70	Lowest		1.41	0.45	Lowest	
Grade (n= 535)				.000*				.000*				.075
Grade 10th	2.08	1.12	Low		2.12	0.95	Low		1.65	0.65	Low	
Grade 11th	1.37	0.46	Lowest		1.55	0.39	Lowest		1.52	0.55	Lowest	
Grade 12th	1.26	0.49	Lowest		1.38	0.46	Lowest		1.63	0.57	Low	
GPA (n= 533)				.442				.343				.002*
< 2.50	1.51	0.64	Lowest		1.68	0.58	Low		1.71	0.68	Low	
2.51-3.00	1.62	0.88	Low		1.74	0.74	Low		1.62	0.61	Low	
3.01-3.50	1.53	0.77	Lowest		1.61	0.65	Low		1.52	0.55	Lowest	
>3.51	1.48	0.80	Lowest		1.65	0.72	Low		1.40	0.41	Lowest	
Family income (Baht/ month) (n= 533)				.956				.886				.019*
<10.000	1.49	0.79	Lowest		1.60	0.66	Lowest		1.49	0.48	Lowest	
10,001-25,000	1.55	0.72	Lowest		1.70	0.66	Low		1.60	0.57	Lowest	
25,001-40,000	1.58	0.78	Lowest		1.70	0.66	Low		1.57	0.60	Lowest	
40,001-50,000	1.55	0.86	Lowest		1.68	0.75	Low		1.56	0.57	Lowest	
>50,000	1.60	0.92	Lowest		1.69	0.69	Low		1.94	0.87	Low	
Total	1.55	0.77	Lowest		1.68	0.60	Low		1.60	0.59	Lowest	

* 1.00-1.60 = very bad/lowest, 1.61-2.20 = bad/low, 2.21-2.80 = moderate, 2.81-3.40 = good/high, 3.41-4.00 = very good/very high

** $p < 0.05$ Level

Association between aggressive and violence, learning behavior, alcohol/ cigarette/ substances uses, gambling, sexual involvement and game addiction behaviors of high school students

Correlational analyses in Table 2 described significant relationships between, alcohol/ cigarette/substances uses, gambling, sexual involvement and game addiction behaviors on aggressive and violence and learning behavior ($p<0.05$). Using Pearson's correlations, the relationship between these variables with aggressive and violence behaviors were negatively stronger than learning behaviors, alcohol, cigarette, and substances uses (r = 0.90 *vs* r = -0.85), gambling (r = 0.83 vs r = -0.75), sexual involvement (r = 0.86 *vs* r = - 0.79). However, in game addiction variable the same degree of correlation was found between aggressive and violence behaviors and learning behavior but at different direction.

Factors influencing aggressive and violence behaviors.

Aggressive and violence behaviors had strong negative correlation with learning behavior (r = -0.87). Likewise, aggressive and violence behaviors was strongly correlated with alcohol, cigarette and substances uses (r = 0.90), gambling (r = 0.83) and sexual involvement (r = 0.86) in positive direction. Weak correlation was found between game addiction and aggressive and violence behaviors (r = 0.15).

Factors influencing learning behavior

Learning behavior has strong negative correlation with alcohol, cigarette and substances uses (r = -0.85), gambling (r = -0.75) and sexual involvement (r = - 0.79) and weakly correlated with game addiction (r = -0.15).

Table 2.

Correlations among Aggressive and Violence, Learning behavior, Alcohol/ Cigarette/ Substances Uses, Gambling, Sexual Involvement and Game Addiction Behaviors of Students (N=534)

Behavior Variables	1	2	3	4	5	6
1. Aggressive and Violence	1					
2. Learning behavior	^{a}-0.87	1				
3. Alcohol, Cigarette and Substances Uses	^{a}0.90	^{a}-0.85	1			
4. Gambling	^{a}0.83	^{a}-0.75	^{a}0.84	1		
5. Sexual Involvement	^{a}0.86	^{a}-0.79	^{a}0.85	^{a}0.80	1	
6. Game Addiction	^{a}0.15	^{a}-0.15	^{a}0.11	^{a}0.13	^{a}0.12	1

$^a p < .05$

Table 3 illustrates the significant relationship between alcohol, cigarette and substances uses, gambling, sexual involvement and game addiction with aggressive and violence behaviors and learning behavior of Thai high school students. Model 1 demonstrates stronger predictive effects of alcohol, cigarette, and substances uses on aggressive and violence behaviors (80.2%) and learning behavior (71.7%). In model 2, gambling had small significant effect on aggressive and violence behaviors (2%) and very small effect on learning behavior (0.5%). Likewise, model 3 shows that sexual involvement had small significant effects on both aggressive and violence behaviors (2.1%) and learning behavior (1.2%). Model 4 revealed that game addiction had significant impact on both aggressive and violence behaviors ($p<0.036$) and learning behavior ($p<0.028$) with smallest significant effects on both variables (only 0.01% and 0.02% respectively). Overall, alcohol, cigarette and substances uses, gambling, sexual involvement and game addiction had significant impact on aggressive and violence behaviors (84.4%) and learning behavior (73.6%) among Thai high school students.

Table 3.
Significant relationships between Alcohol/ Cigarette/ Substances Uses, Gambling, Sexual Involvement, and Game Addiction with Aggressive and Violence and Learning behavior of Students (n=534)

Model	R^2	R^2 change	F change	df 1	df 2	Sig F change
Aggressive and Violence						
1	.802 [a]	.802	2152.578	1	532	.000
2	.821 [b]	.020	58.034	1	531	.000
3	.842 [c]	.021	70.635	1	530	.000
4	.844 [d]	.001	4.398	1	529	.036
Learning behavior						
1	.717 [a]	.717	1345.372	1	532	.000
2	.722 [b]	.005	9.457	1	531	.002
3	.733 [c]	.012	23.215	1	530	.000
4	.736 [d]	.002	4.829	1	529	.028

a. Predictors: (Constant), Alcohol/ Cigarette/ Substances Uses
b. Predictors: (Constant), Alcohol/ Cigarette/ Substances Uses, Gambling
c. Predictors: (Constant), Alcohol/ Cigarette/ Substances Uses, Gambling, Sexual Involvement
d. Predictors: (Constant), Alcohol/ Cigarette/ Substances Uses, Gambling, Sexual Involvement, Game addiction

Table 4 demonstrates the regression coefficients of each variable that influences aggressive and violence behaviors and learning behavior. For aggressive and violence behaviors, the significant predictors were alcohol, cigarette and substances uses, gambling, sexual involvement and game addiction. For learning behavior, the significant predictors were alcohol, cigarette and substances uses, sexual involvement, and game addiction. Alcohol, cigarette, and substance uses had strongest positive impact on aggressive and violence behaviors ($\beta = 0.443$) but has negative impact on learning behavior ($\beta = -0.500$). Gambling had positive impact on aggressive and violence behaviors only ($\beta = 0.139$). Sexual involvement has positive impact on aggressive and violence behaviors ($\beta = 0.281$) but has negative impact on learning behavior ($\beta = -0.195$). Game addiction has weak positive impact on aggressive and violence behaviors ($\beta = -0.041$) but has negative impact on learning behavior ($\beta = -0.052$).

Table 4.
Regression coefficients of factors influent aggressive and violence behaviors and learning behavior

Variables	Aggressive and violence behaviors					. Learning behavior				
	B	SB	Beta	t	p	B	SB	Beta	t	P
(Constant)	.168	.041		4.066	.000	4.518	.050		90.020	.000
Alcohol/ Cigarette/ Substances Uses	.443	.033	.506	13.344	.000	-.500	.040	-.610		.000
Gambling	.139	.028	.167	4.996	.000	-.046	.034	-.059	-1.364	.173
Sexual Involvement	.281	.034	.288	8.363	.000	-.195	.041	-.214	-4.766	.000
Game addiction	.041	.020	.036	2.097	.036	-.052	.024	-.050	-2.197	.028

The predictive equation derived from Table 4 yielded 2 models.

Model 1: $\hat{Y} = 0.168 + 0.443X_1 + 0.139X_2 + 0.281X_3 + 0.041X_4$

The model predicts if the sample has 1 point mean score increasing in alcohol, cigarette and substances uses, gambling, sexual involvement and game addiction, then aggressive and violence behaviors will likely increase at 0.443, 0.139, 0.281 and 0.041, respectively.

Model 2: $\hat{Y} = 4.518 - 0.5X_1 - 0.195X_3 - 0.052X_4$

The model predicts if the sample has 1 point mean score increasing in alcohol, cigarette and substances uses, sexual involvement and game addiction, then the learning behavior will likely decrease at 0.5, 0.195 and 0.052, respectively.

Discussion

This study reflects the situation of the future human resources in Thailand although the samples were drawn from one school site. The samples in this study belong to a group of good student. Considering the profile across gender, grade level, GPA, and family monthly income, it was found that the samples had good to very good learning behavior, have lowest level of risk behaviors -not aggressive or show violence behavior. The highest mean scores among the risky behaviors was sexual involvement (mean = 1.66, SD 0.60), which was at low level. The lowest mean score was the alcohol, cigarette and substances uses (mean = 1.48, SD 1.48).

Comparisons of mean scores of variables in this study according to demographic characteristics indicated that gender of the samples had significant effect on gender, which male had higher mean score at low level (mean = 1.65, SD =0.62). As widely aware, male is perceived to engage in violence or aggressive behavior more than female counterparts. This finding also found in other variables, sexual involvement and game addiction. Males are prone to get involve with these behaviors, especially in Thai culture.

As far as grade level is concerned, the result revealed that this factor had statistical relationship with learning behavior, aggressive and violence, alcohol, cigarette and substance uses, gaming, sexual involvement. Several studies find that adolescent sex diminishes high school success (e.g., Billy et al. 1988; Schvaneveldt et al. 2001) and as it was found that the samples had higher level of sex involvement activity, therefore immediate measures to prevent early sex involvement are needed. Similarly, the preventive measure on game addiction problems must be also initiated.

The study can be concluded that the higher level of learning behavior the lower level of aggression and violent behaviors will be. On the contrary if the level of substance abuse, gambling and sexual involvement, and game play had increased it is likely that the aggression and violence behavior would also increase.

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Perceptions of Election Poll Reporting and Their Effects on the Support for Election Poll Censorship: Structural Equation Models Testing Mediating Roles of the Third Person Effect, Importance of Electability, and Voting Behavior

Kim Yong-ho [1]
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ABSTRACT

This study focuses on importance of perceptions of election polls published by mass media and their effects on the support for election poll censorship. Two hypothetical models using SEM technique are tested against survey data from a sample of 422 residents of Ulsan metropolitan city in S. Korea. One model predicts that the biased media perception affects the support for censorship through mediating third person effect and sincere vote, while the other model predicts that horse race reporting affects the support for censorship through mediating third person effect and strategic vote. Two models fit well with the data. In both models the third person effects were found to play key roles in the mediation processes. We discussed several unexpected findings from the data analysis and their implications for the Korean Election Act, Article 108 by which the media publication of election poll results is prohibited during the last 6 days before the election date.

Keywords: Hostile media perception, Horse-race reporting, Support for Censorship, Voting behavior, Candidate Electability, Third-Person Effect

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THEORETICAL BACKGROUNDS

Election poll censorship

In most advanced democracies, polls have become an institutional component of press coverage with a legitimate role to play in covering issues of the day. The credibility of polls rests upon the public belief that reported polls are reasonably accurate pictures of public opinion.

There are many reasons why the coverage of election polling becomes popular in media. Lavrakas and Traugott(2000) indicates several such reasons, in a chapter explaining why election poll news becomes 'highly valuable' since 19th century (Ch. 1: pp. 3-4): means of writing about the popular will, formalized and systematic polling techniques, speedy data gathering and rapid analytic reporting technologies, and a quasi-objective, proactive role in the news making process.

Literature in political communication indicates the 'hostile media perception' as distinct for those who are strongly opinionated. Even unbiased poll results may be thought as of 'horse race reporting' which happens to over-emphasize leading candidates while sacrificing followers. Price and Stroud(2006) reported that "over the past few decades, researchers have become increasingly concerned about the public's impression of polls." For example, Traugott(1991) reported, 45% of the American voters believed that election poll publication was a bad thing for the country and that government should not allow early election projections, and that networks should not report election projections because it discourages voting. Negative views on election polls may contribute to reluctance to respond to polls and surveys, with online survey techniques further worsening the situation (Kim, Weaver, & Willnat, 2000). Many nations restrict the publication of election polls, according to Donsbach(2001). Spangenberg(2003) also found 30 out of 66 countries ban the publication on or prior to election day.

However, surveys showed mixed opinions about such restrictions. There is no consensus in literature on the nature of horse race perception of election poll reporting. Scholars concern about the impacts of horse race journalism. Patterson (1993; 2005) feared that focusing on games over substance undermines voters' ability to discriminate policy debates and to reach informed decisions in elections. Capella and Jamieson(1997) argue that strategy frame portrays candidates as self interested and poll driven opportunists, promoting cynicism and distrust among voters. Farnsworth and Lichther(2006) warned against a sort of self reinforcing bandwagon effect in that the over-emphasized importance of winning candidate's electability will narrow down the ever-decreasing press coverage for losing candidates. In this sense, "horse race journalism unduly promotes the media as a central institution in deciding electoral outcomes".

Although scholars have probed the impact of the horserace extensively, the nature of poll reporting remains theoretically and empirically vague. Simply criticizing election polls as biased or horserace-like is one thing and elaborating a model of poll reporting is another. Building such theoretical models is a critical step in making sense of the larger role of polls in democratic politics and testing them empirically against real data is a lucrative way to look into how media perceptions contribute or distribute to the election poll censorship.

The third person effect: perceptual differences

The influence by mass media has been long time ascribed to be indirect, rather than direct. People usually do not admit they are influenced by media but others are. What makes mass media influential is the people's perceptions of the media influence on other people rather than themselves, thus 'the third person effect' so to speak. Since Davison(1983) proposed the concept originally, researchers found two key components in this concept. Regarding to the former component, the perceptual gap between the perceived extent of media influence on others are greater than that on self. Literature on the perceptual component confirms consistently that individual respondents tend to view others more influenced by socially undesirable media content such as violence(Rojas, Shah, & Faber, 1996) and sexually explicit materials(Gunther, 1995) than their own selves.

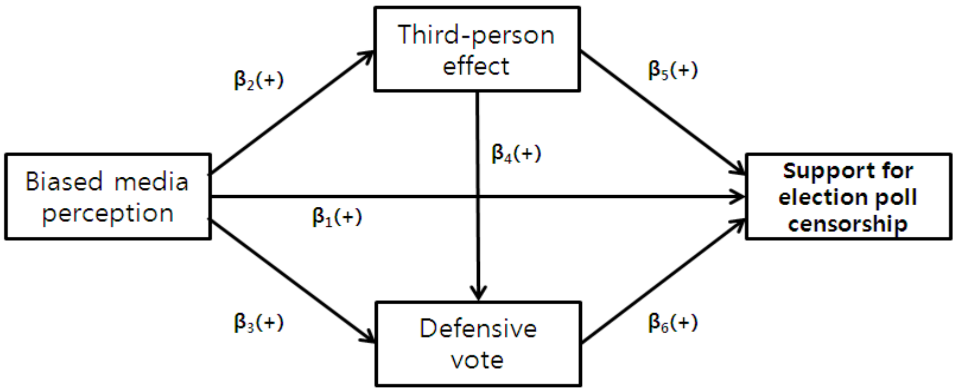
This perceptual gap has been explained mainly by biased optimism(Gunther & Mundy, 1993) or ego enhancement(Perloff, 1989), more recently by self defensive mechanism(Lee, 2012), in that individuals tend to defend self esteem against persuasive media influence from socially undesirable contents, while underestimating others' defense mechanism. Once researchers substitute the undesirable media materials for the desirable(Gunther & Thorson, 1992: PSAs promoting charity), the picture becomes reversed in that respondents are likely to see themselves more influenced by the socially desirable plan promoted by media materials than others, thus confirming again the self-esteem explanation.

They coined this sort of reverse third person effect as the first person effect, whose effect by positive messages are perceived as more influential on self and not others(Golan & Day, 2008). The public impressions of election polls may be desirable or not, and thus their behavioral consequences are left for empirical scrutiny like in this presentation. For this presentation, perceptions of election poll reporting are hypothesized as undesirable, either biased reporting perception or of horse-race coverage. The third person effects by either media perceptions are expected to be positively related to the biased or horse race coverage perceptions.

Behavioral consequences and protectionism

It is reasonable for researchers to expand their scholastic interest into the behavioral consequences of perceptual gap. When individuals perceive others more vulnerable to undesirable media content, and even if they perceive themselves as more immune to the same content than others, then they are willing to support for the measure to ban the content, media censorship(Shah, Fable, & Youn, 1999), or support for government regulation(Salwen & Driscoll, 1997; Wan & Youn, 2004).

Newwirth et al.(2002) argued that studies in this area has not successfully explained the behavioral component of the perceptual gap in media influence. If the perceptual gap and behavioral consequence of the mis-perception are different conceptually from each other, it sound right to say that the psychological mechanisms underlie the two distinct phenomena(Golan & Day, 2008). The behavioral component is often accounted for with such constructs as paternalism theory(McLeod et al., 1997) and the theory of protection motivation(Nathanson, Eveland, Park, & Paul, 2002). McLeod, Detenber and Eveland(2001) explains why such protectionism prevails in the content of censorship and the third person perception. The self esteem or enhancement or defense mechanism successfully account for the third person effect whether materials were desirable or not. But it became susceptible in case of publishing election polls if not doubtful in explaining behavioral consequences of perceptual gaps from the socially undesirable and the desirable media content.



HYPOTHETICAL MODELS

Figure 1A. Hypothetical model for biased media perception (Model A)

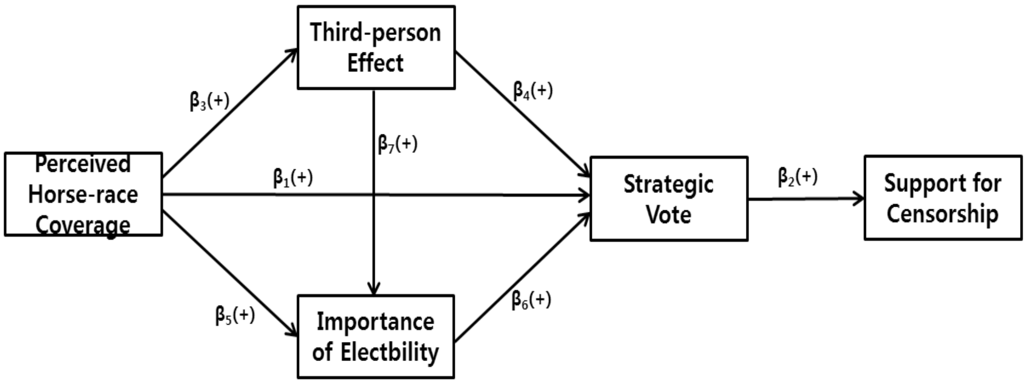


Figure 1B. Hypothetical model for perceived horse-race coverage (Model B)

RESEARCH METHODS

Survey questionnaires were administered to 422 individuals in Ulsan metropolitan city at the east south part of the South Korea. They were aged 34.5 years in average, highly educated with more than 12 years of school years, and 47% were women,

Perceived election poll reporting: biased vs. horse race reporting perception

Two items were used for biased reporting perception: 'This time local papers and broadcasters are biased toward major parties and their candidates.' 'This time local papers and broadcasters are against minor parties and their candidates.'(-). Reliability coefficient = .776.

For the horse race reporting wording in questionnaire needs more caution than the biased since in this study we conceptualized it as neutral without negative connotations. Two items for horse race reporting: 'Poll reporting by local mass media this election period was indicating the situation as it stands.' 'Newspaper and broadcasters in this area cover the election race credibly and accurately.'

The third person effect of biased vs. horse race reporting perception

The third person effect is defined as equal to the perceived effect of media coverage on people other than respondents (thus, perceived effect on the third persons) minus the perceived effect on respondents themselves (thus perceived effect on first person). For the biased reporting, the perceived effect on the third persons was measured by an item: 'This time local mass media influence me by biased coverage of election polls.' The perceived effect on the first person was by another: 'Many persons are influenced by biased coverage toward major parties by mass media.' For the horse race reporting: 'Many persons are influenced by recent coverage of election polls by local mass media.' 'The current coverage of election race by local mass media influenced me.'

Sincere vote vs. strategic vote

Two items were used for the sincere vote: 'I will keep my sincere vote only for who I prefer.' 'I will vote for no one but my favorite one.' Reliability coefficient = .740. Four items for the strategic vote are as follows: 'I will not vote for who will lose.' 'I will vote for who will win.' 'I often vote for who is recommended by others.' 'Voting for who I prefer only helps those I hate to be elected.'

The importance of electability

One item was used to measure the importance of electability as a criteria for choose a right candidate in a reasonable way with a Likert-type 5-point scale where 1 means not very important and 5 means very important.

Support for election poll censorship

One item was used: 'Do you agree with the Korean Election Act article 108 which prevents mass media from publishing election poll results 6 days before election day?'

RESULTS

Results for Model A

Table A1.
Means and SDs(Model A)

variables(n=422)	mean	sd
Biased media perception	3.31	.817
Defensive vote	3.87	.890
The third person effect	1.16	1.419
Support for election poll censorship	3.68	.970

Table A2.
Zero-order Pearson correlations (Model A)

	Biased media perception	The third person effect	Defensive vote
The third person effect	$.546^{***}$	-	-
Defensive vote	$.270^{***}$	$.342^{***}$	-
Support for election poll censorship	$.130^{**}$	$.198^{***}$	$.216^{***}$

***p<.01,* ****p<.001*

Table A3.
Significance tests for path coefficients (Model A)

paths	coefficients	standardized coefficients	S. E.	C. R.	accept/ reject
β_1	-.012	-.009	.097	-.126	reject
β_2	1.183	.619	.108	10.976^{***}	accept
β_3	.183	.183	.083	2.210^{**}	accept
β_4	.145	.278	.040	3.368^{***}	accept
β_5	.084	.123	.046	1.838^{*}	accept
β_6	.269	.206	.083	3.261^{***}	accept

**p<.05,* ***p<.01,* ****p<.001*

Table A4.
Goodness-of-fit test indices (N=422)

Model A	χ^2	df	CMIN/DF	P	CFI	TLI	RMSEA
Biased reporting	7.390	5	1.478	0.193	1.00	.99	.034

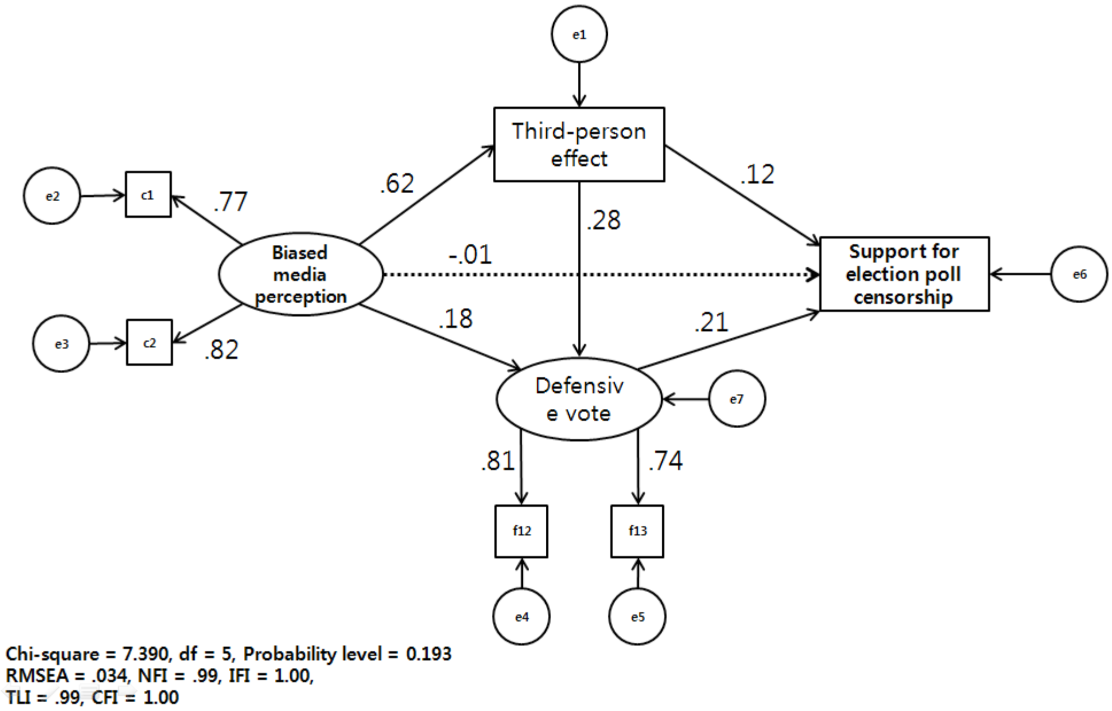


Figure 2A. Test results from SEM (Model A)

Table A5.
Decomposition of Effect on the support for censorship (Model A)

Hypothesis	path	calculation	decomposed effect
direct effect (H1)	β_1	-.009	0
mediated effect (H2)	$\beta_3 \times \beta_6$	.183 × .206	.038
mediated effect (H3)	$\beta_2 \times \beta_5$	.619 × .123	.076
re-mediated effect (H4)	$\beta_2 \times \beta_4 \times \beta_6$	.619 × .278 × .206	.035
total effect			.149

Test results for Model B

Table B1.
Means and SD's (Model B)

variables(n=422)	mean	sd
Perceived Horse-race Coverage	2.93	.774
Third-Person Effect	.144	1.260
Importance of Electability	2.76	1.120
Strategic Vote	2.34	.826
The Support for Censorship	3.68	.970

Table B2.
Zero-order Pearson correlations (Model B)

	Perceived Horse-race Coverage	Third-Person Effect	Importance of Electability	Strategic Vote
Third-Person Effect	.147**	-	-	-
Importance of Electability	.190***	.175***	-	-
Strategic Vote	.140**	.071	.326***	-
The Support for Censorship	.036	-.025	-.046	-.102*

**p<.05, **p<.01, ***p<.001*

Table B3.
Significance tests for path coefficients (Model B)

paths	Coefficients	standardized coefficients	S. E.	C. R.	accept/ reject
β_1	.041	.080	.031	1.303	reject
β_2	-.244	-.113	.126	-1.927*	accept
β_3	.268	.187	.092	2.925***	accept
β_4	.009	.026	.020	.451	reject
β_5	.211	.166	.079	2.677***	accept
β_6	.151	.377	.028	5.418***	accept
β_7	.129	.145	.044	2.952***	accept

**p<.05, **p<.01, ***p<.001*

Table B4.
Goodness-of-fit test indices (N=422)

criteria	χ^2	df	CMIN/DF	P	CFI	TLI	RMSEA
Horse race reporting	43.376	23	1.886	.006	.99	.99	.046

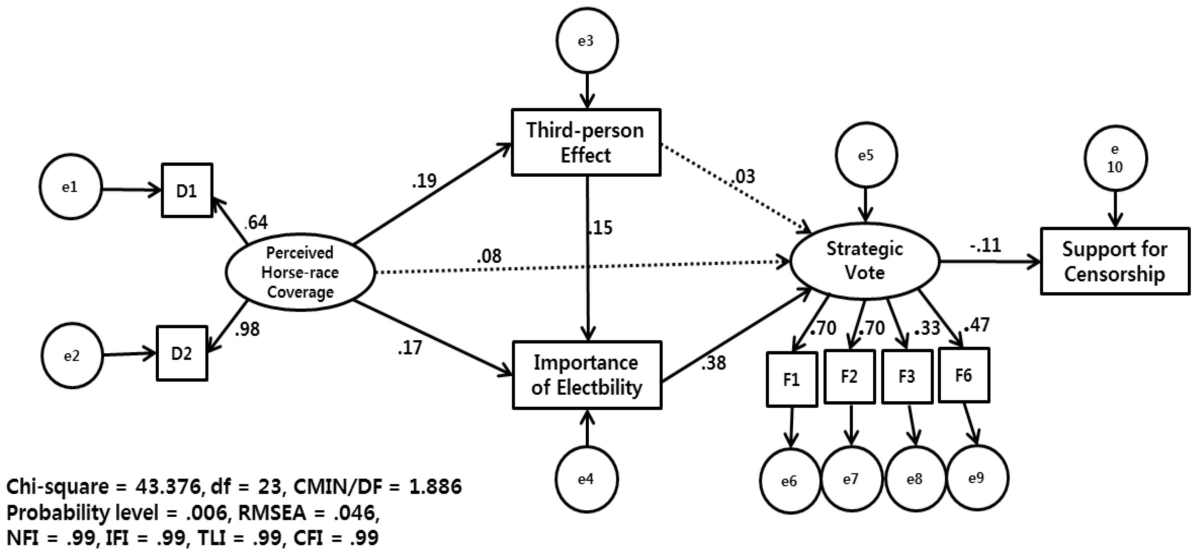


Figure 2B. Test results from SEQ (Model B)

REVISION OF MODEL B

Dividing Respondents by Education Level

Table B5.
Means and SDs

variables	high education (n=227)	low education (n=186)
Perceived Horse-race Coverage	2.90(.783)	2.95(.774)
Third-Person Effect	.14(1.223)	.17(1.296)
Importance of Electbility	2.73(1.119)	2.78(1.128)
Strategic Vote	2.26(.685)	2.43(.772)
The Support for Censorship	3.68(1.005)	3.69(.940)

Goodness-of-fit test indices for the hypothetical model by education level

Table B6.
Goodness-of-fit indices for revised models for the hypothetical research model

Education levels	χ^2	df	CMIN/DF	P	CFI	TLI	RMSEA
High	16.226	23	.705	.845	1.00	1.00	.000
Low	42.398	23	1.843	.008	.99	.98	.068

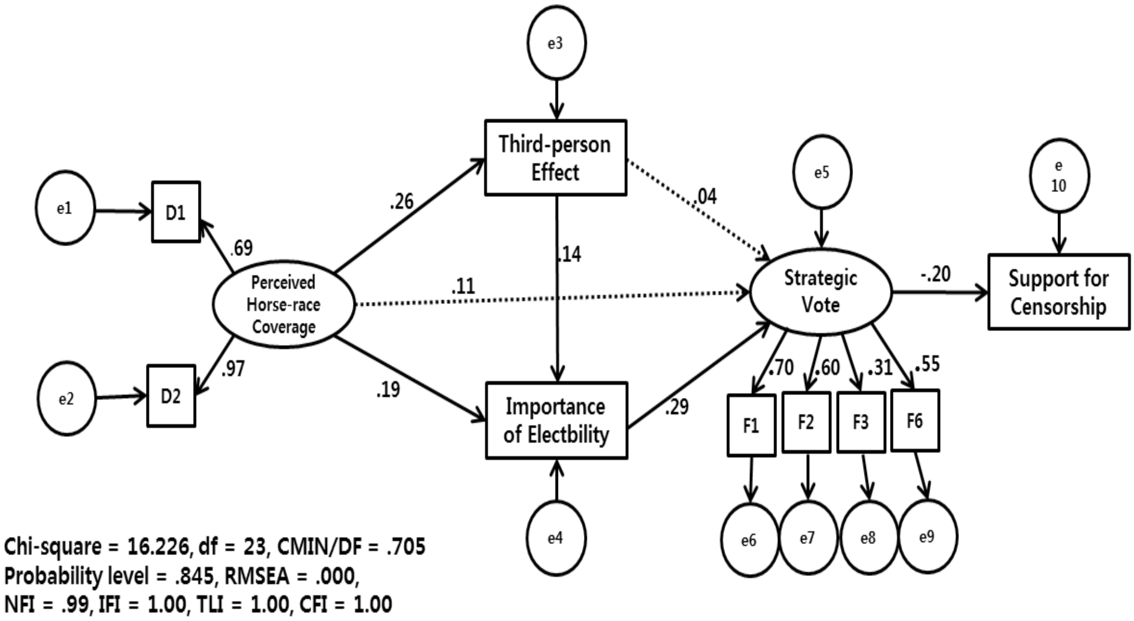


Figure 3B. Results from testing Model B only for high education level respondents (n=227)

Results from statistical significance tests of path coefficients

Table B7.
Results from statistical significance tests of path coefficients

paths	coefficients	standardized coefficients	S. E.	C. R.	accept/ reject
β_1	.067	.113	.053	1.263	reject
β_2	-.381	-.195	.163	-2.332**	accept
β_3	.373	.264	.120	3.115***	accept
β_4	.016	.039	.035	.469	reject
β_5	.239	.185	.103	2.331**	accept
β_6	.134	.292	.041	3.291***	accept
β_7	.128	.139	.062	2.050**	accept

$^{*}p<.05$, $^{**}p<.01$, $^{***}p<.001$

DISCUSSION

Theoretically media perceptions in this study were conceptualized in two ways: biased reporting perception vs. horse-race coverage perception. Test results from structural equation modeling for two hypothetical models for two media perceptions of election poll reporting (Model A & B) indicate some surprising findings as follows:

Diverging power of media perceptions

Model A showed that the biased reporting perception had influenced the support for election poll censorship positively, while Model B did the opposite influence of the horse-race reporting perception. Because of the nature of our one source data, the two diverging influence of perceived media reporting of election poll results may cancel off each other. If respondents perceived media reporting of election poll results as biased, then the biased media perception contributed to the support for the election poll censorship. Even this contribution came not from direct but indirect influence by such mediating variables as third person effect and defensive vote.

But, if respondents perceived media reporting as like a horse-race coverage, then that perception caused them to oppose to the election poll censorship. Some argue for the mediating role of strategic vote for the effect of the horse race reporting on the support for censorship. The third person effect and the importance of electability are mediating factor for the effect of horse race perception on strategic vote. That argument makes sense in that the strategic vote is defined as vote for an electable candidate by persons whose favorite candidate has no chance to win the game. In sense of the existence of influence of horse race reporting perception on the support for censorship through mediation by strategic vote, the argument is right. But the influence is negative rather than positive.

Increasing suspicion over paternalism explanation of strategic vote

With the results from testing Model A, biased poll reporting increased the third person effect and defensive vote, and contributed to our conviction of paternalism explanation for the election poll censorship. The latter contribution by indirect effect of biased poll reporting was mediated by the third person effect and defensive vote. These three perceptions were coordinating to build up indirect effect of biased poll reporting upon supporting for censorship.

However the horse race reporting or ‘race perception of election poll reporting’ with more neutralized meaning did not turn out to contribute to the support for election poll censorship. The race perception influenced the strategic vote through mediation of third person effect of the race perception of election poll reporting and perceived importance of electability. The strategic vote in its turn negatively influenced the support for censorship. It became bizarre to explain the results in terms of paternalism. Respondents were likely to admit the importance of electability of their own favorite candidates and their opponents at the same time and took the electability information into account when they consider who to vote. Thus they seem to vote strategically and seriously. Their tendency of strategic vote offended the censorship for publishing election poll results.

Controlling for education level in the above Revision chapter improved the goodness-of-fit indices for the Model B only for the group of high education level. This finding increased our confidence over the nature of strategic vote as more elaborated one which highly educated persons could easily employ for their reasoned decision making with more information from outside like mass media as good voters.

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Survey of Stroke Prevention among Elderly Population at Risk

Prapai Kittiboonthawal [1]
Supalux Srithanya [2]

Abstract

Background: WHO emphasized on stroke prevention strategic through raising community awareness on risk reduction among high risk. Prevalence of stroke In Thailand was 50 per 100,000 populations. There was increased of stroke in Saraburi, a province in Thailand from 37.89 per 100,000 in 2008 to 62.36 per 100,000 in 2010. Stroke survivals have to live with disability condition..

Objectives: This study investigated stroke prevention knowledge, attitude, and health behaviors of elderly people with chronic illness.

Methods: Participants were elderly age $\geq$ 60 at risk of having stroke due to chronic illness includes HTN (92.5%), DM (43.1%), high cholesterol (55.2%), BMI >25 (50%), and smoking (17%). The 174 elderly residents were randomly selected from 11 districts of Saraburi province. The stroke prevention and awareness were assessed using three questionnaires: knowledge, attitude, and health behavioral practice on stroke prevention.

Results: Finding revealed that elderly with chronic illness in this study had moderate stroke prevention knowledge (mean = 8.16, SD = 3.59), moderate prevention practice (mean = 10.90, SD = 3.96), and attitude towards stroke prevention at good level (mean = 17.20, SD = 2.75). This study provides support and may be useful for health educators for opportunity to improve knowledge on stroke prevention among elderly at high risk.

Keywords: Stroke, elderly, attitude, knowledge, health practice

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Introduction

Prevalence of stroke in Thailand was 50 per 100,000 populations with mortality rate of 10%-20%. Stroke survivors are often left with disabilities, need long term care, and time for recovery. This illness caused significant economic and social lost. Stroke in Saraburi province have increased steadily from 37.89 per 100,000 population in 2008 to 62.36 per 100,000 population in 2010. The incident rate was ranked 7th among 76 provinces of country (NCDs Office, 2002). People with chronic condition from hypertension, diabetes, smoking, high cholesterol, and heart disease are considered at risk of having stroke.

Chronic diseases are risk factors of stroke which commonly found in 87% of elderly (Puangwarin, 2001). Seniors often have at least one or more of these underlying diseases. Thailand is rapidly changing into aging society and population live longer life. Aging is stage of change in physical, psychological, and social decline. Chronic health problems can limit quality of life of elderly if not receiving well care. The chance of getting stroke is high, elderly and family need to learn about stroke warning signs and risk reduction (Puangwarin, 2001). Previous study Mano (2009) found the most recognition of stroke warning signs among patients with hypertension was acute severe headache (82.9%) and weakness at one side of the body (58.6 %).The survey of public stroke awareness and education reported that most people recognized the warning signs of stroke about dizziness, vertigo for 21% -26%, headache for 16% - 22%, and fatigue or weakness half of the body for 6% - 15% (Flaher, Klindorfer, & Kissela, 2004).

WHO (2011) emphasized prevention strategies by promote community awareness and emergency practices of stroke. The correct knowledge, attitude, and health behaviors are important to prevent severity of stroke and treatment effectiveness. Knowledge is important to help elderly develop good self-care, attitudes towards stroke prevention, and awareness of promoting healthy behaviors. The concept of health promotion focuses on promoting awareness of benefits from the action, self- efficacy to reduce perceived barriers lead to changes in attitude and motivation to change behavior for better health outcomes (Pender, Murdaugh, & Parsons, 2006). Previous studies have found that elderly people is a vulnerable group of chronic illness at risk of getting stroke are often lack of stroke knowledge, poor attitude, and practice of preventing causal factors and warning signs of stroke (Reeves, Hogan, & Rafferty, 2002).

Objectives

The purpose of this study was to investigate stroke prevention knowledge, attitude, and health behaviors among elderly with chronic illness at risk of having stroke.

Methods

Participants

Participants were 174 elderly, age $\geq$ 60 who are at risk of having stroke and diagnosed with at least one more chronic illness condition includes hypertension (HTN), diabetes (DM), high cholesterol, body mass index (BMI) >25, and smoke cigarettes. These elderly was subset of 370 samples randomly selected from 15 primary care hospitals located in 8 out of 13 cities in Saraburi province.

Data collection

This study was approved by the Ethics Committee for Human Research Protection at Boromarajonani College of Nursing Saraburi. Researchers described purposes and data collection method to participants before obtaining the consent form. Data was collected in July – August 2013. Researchers and assistants read the questionnaires to the participants if needed and provided opportunity for participants to ask questions.

Measures

The questionnaire used for data collection were

1. Personal data form that assess age and chronic illness/condition,

2. The 13-item stroke prevention knowledge related to causes, symptoms, warning signs, and risk reduction. Response option were "Yes" = 1 and "No or don't know" = 0. Score range of total scale was 0-13, low level score < 4, moderate level score = 4.3-8.6, and high level score > 8.7

3. The 10-item stroke prevention practice behavior comprised of questions related to knowledge

seeking, food consumption, physical activity and exercise, comply to medication/ treatment/follow up schedule. Response options were "Not at all" = 0, "Sometime" = 1, and "Always" = 2. Score ranged of total scale was 0-20, low level score = 0-6.6, moderate level score = 6.7-13.4, and high level score = 13.5-20.

4. The 12-item stroke prevention attitude towards risk factors, risk reduction, and consequence of stroke. Response options were "strongly agree" = 2, "Agree" = 1, and "Disagree" = 0. Score range 0-24, poor = 0-7, moderate = 8-15, good = 16-24.

Results

1. Sample characteristics

Participants were elderly age 60-86 years, 59.5% aged 61-65 years, 29.3% male and 70.7% female. Chronic illness condition found were hypertension (92.5%), high cholesterol (55.2%), BMI > 25 (50%), diabetes (43.1%), and smoking (17%) as showed in Figure 1.

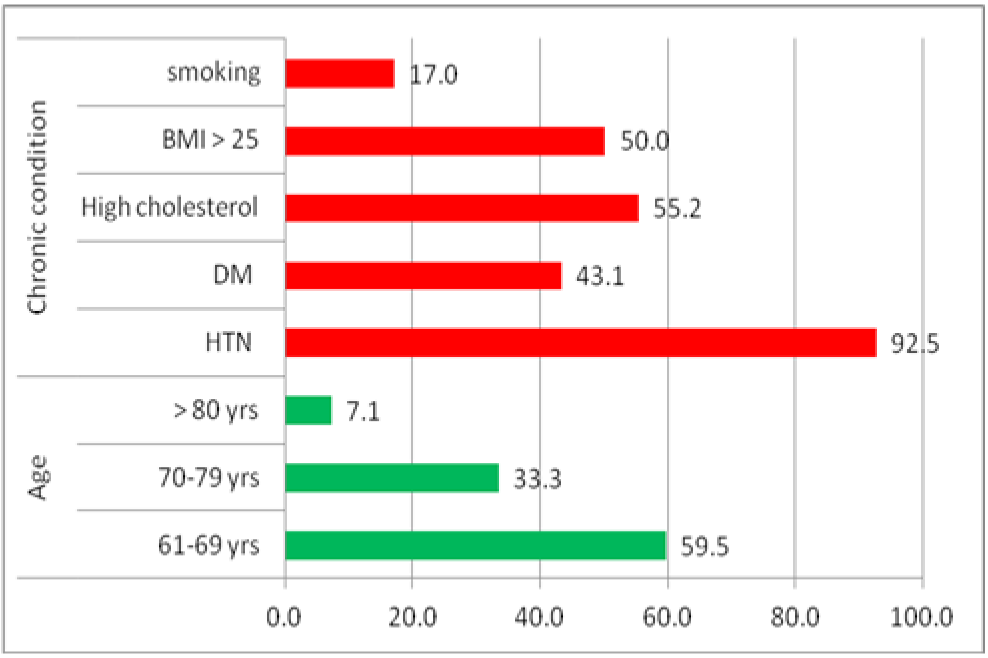

Figure 1. Age and chronic illness/conditions found among elderly participants

2. Stroke prevention knowledge

Finding revealed that elderly with chronic illness in this study had stroke prevention knowledge at moderate level with mean score of 8.16 (SD = 3.59). When examined mean score of each item revealed that 10 out of 13 items had mean item score at high level as showed in Figure 2. The questions were related to stroke warning signs, stroke consequences, and stroke prevention knowledge. However, the item that asked whether "Fall is the cause of stroke" was found to have item mean score at low level (mean = 0.17, SD = 40) whereas the two questions that asked "Tel 1669 is emergency number for hospital express service" and "The effective treatment should do within 3-4 hours after having stroke symptoms" were found to have mean items at moderate level mean = .55 (SD =.52) and mean = .48 (SD =.52), respectively.

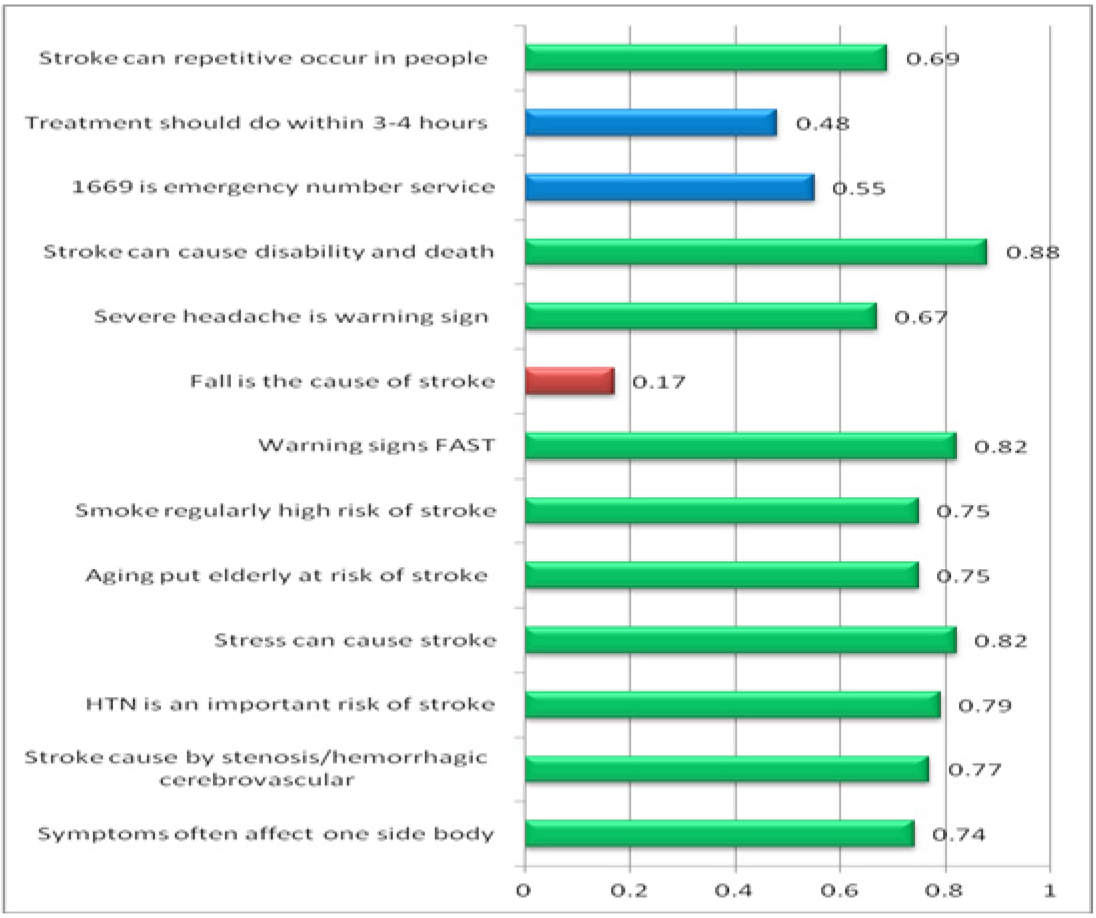

Figure 2. Stroke prevention knowledge among elderly with chronic illness
Score range: 0-1, ■ low level < .33, ■ moderate level = .33-.66, ■ high level > .66

3. Stroke prevention behavior

Finding revealed that elderly with chronic illness in this study had stroke prevention behavior at moderate level with mean score of 10.90 (SD = 3.69). When examined mean score of each item revealed that 3 out of 10 items had mean item score at high level as showed in Figure 3. The questions were “Follow up as appointment regularly”, “Drink alcohol beverage”, and “Consume fruit and vegetable regularly”. Whereas, the item with lowest score at moderate level was “Take home remedies and herb to fight with chronic disease” mean = .71 (SD =.84).

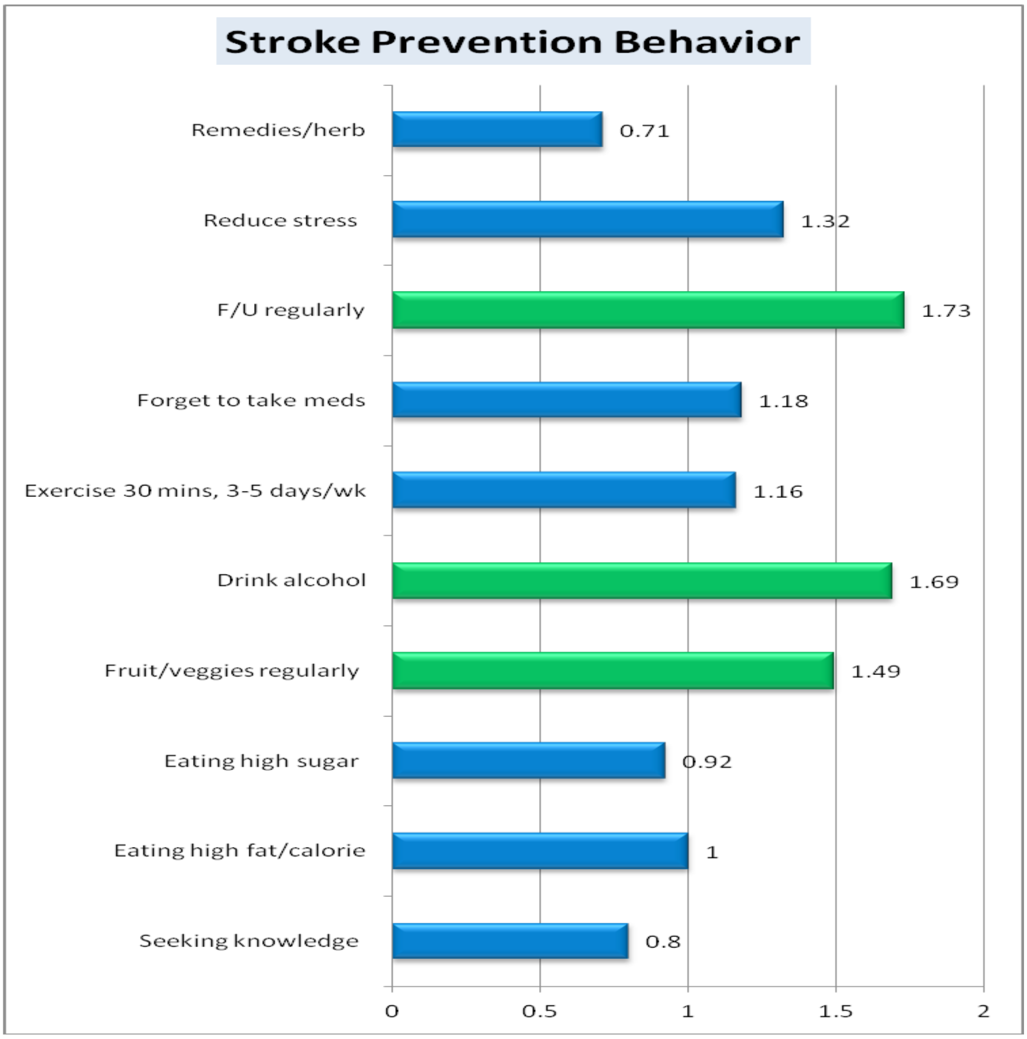

Figure 3. Stroke prevention behavior of elderly with chronic illness
Score range: 0-2, low level < .66, moderate level = .66-1.33, high level > 1.33

4. Stroke prevention attitudes

Finding revealed that elderly with chronic illness in this study had good attitudes towards stroke prevention with mean score of 17.20 (SD = 2.75). When examined mean score of each item revealed that 6 out of 12 items had mean item score at high level as showed in Figure 4. The questions with mean score reflect attitudes on stroke prevention at moderate level were related to stroke warning signs, stroke consequences, and stroke risk factors. There were two items related to stroke risk had the lowest mean score including "There are equal chance of having stroke between people who take good care of their health and people who have bad habit" (mean = 0.98, SD = .84) and "Woman has lower chance of having stroke compare to man" (mean = .98, SD =.80).

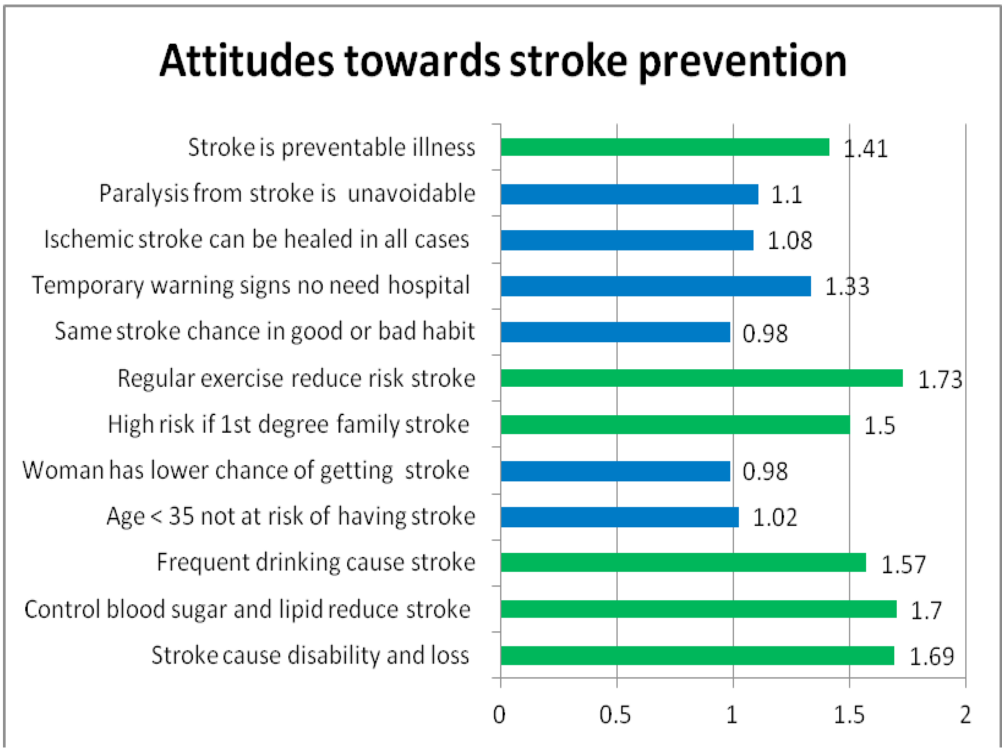

Figure 4. Attitudes towards stroke prevention of elderly with chronic illness
Score range: 0-2, low level < .66, moderate level = .66-1.33, high level > 1.33

5. Overall stroke prevention by chronic disease

The overall stroke prevention of elderly with chronic illness was at moderate level with mean score of 36.69 (SD = 7.97). Score ranged was 0 – 57 which can be categorized as low level (0-18), moderate (19-38), and high (39-57) levels. Proportion of elderly for 33.3% and 57.1% were found to have low and moderate levels of overall stroke prevention, respectively (Figure 5). When categorized prevention levels according to chronic disease or health problems revealed the top three lowest scores of stroke prevention found among elderly were BMI > 25 (40.7%), diabetes (36%), and smoking (33.3%).

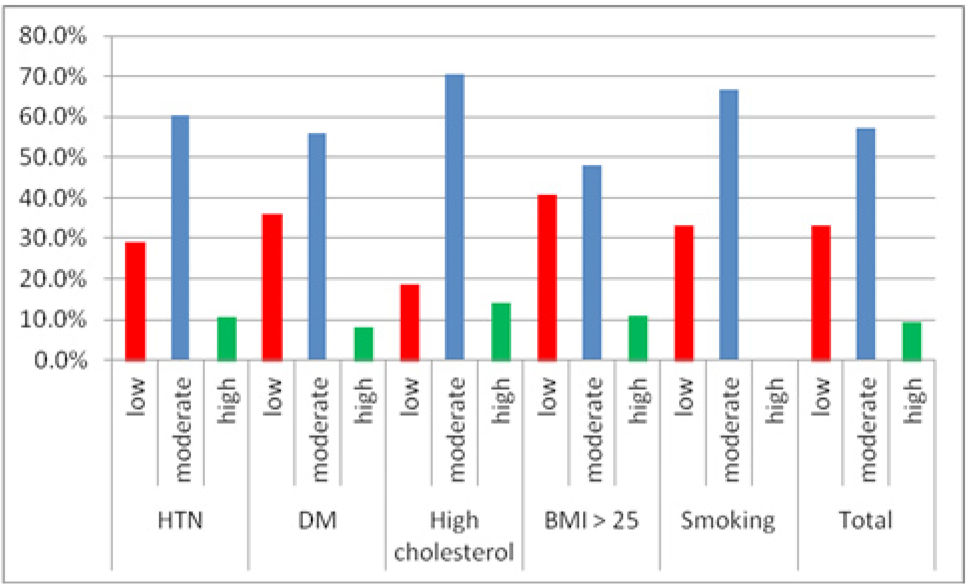

Figure 5. Overall stroke prevention by chronic disease
low level, moderate level, high level

Discussion

This study provides information for healthcare personnel and educators for improvement of stroke prevention in elderly with high risk. It has been recommended for ischemic stroke prevention through control the modifiable risk factors using pharmacological and lifestyle changes. The uses of antiplatelets, antihypertensive, and statins have been shown to reduce the risk of recurrent stroke and other vascular events (Di Legge et al, 2012). Study of experienced in receiving stroke awareness information in the United States, Europe, and Asia found that majority of people knew more about cause and risk factors of stroke than recognition and awareness of stroke warning signs. The warning signs, that most people recognized were acute or severe headache, weakness on one side of the body or arm (Flaher et al, 2004).

According to research reports on most recognized warning signs in Thailand were 21-26% of dizziness (vertigo), 16-22% of headache, and 6-15% of fatigue on half of the body (Mano, 2009). The researcher noted that knowledge related to the causes and warning signs of stroke are difficult to remember and complicate communications for general public understanding.

Comparison of overall stroke prevention as perceived by each risk factor of chronic illness found different levels of prevention. The top three with low level of stroke prevention was found among the group of elderly with BMI > 25, Diabetes, and smoking. This study found that elderly with chronic illness had knowledge for primary response related to contact 1669 for emergency medical service and to receive treatment within 3-4 hours at moderate level which is a crucial. This is consistent with a study to provide knowledge about stroke warning signs which found that the scores of stroke awareness of emergency phone numbers did not change. This may be because majority of the elderly had limited and decline ability to think and to get new information particular about the numerical due to aging and chronic diseases (Becker, 2001).

Conclusion

This study provides support for health educators for opportunity to improve knowledge on stroke prevention among elderly at high risk of having stroke. The perceived of stroke prevention related causes, warning signs, risk reduction behavior of high risk elderly may be useful for treatment effectiveness and lower the severe consequence.

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Opinion on Sexuality among Early Thai Teens

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Abstract

Current technology advancement opens door for adolescents to gain access to media with sexual content easier. Together with developmental changes result in adolescents less tie to family which limit the source of knowledge about reproductive health. As a result, adolescent early involvement in sexual activity is one of significant problem in Thailand. Sexual activities among adolescent has tremendous impacts on social and country worldwide. In Thailand, there is increasing unplanned pregnancy especially among early adolescents and risk of having sexual transmitted diseases (STDs) including HIV. This study aims to explore opinion of adolescents towards sexuality of Thai adolescents. Participants were convenient sample of 449 eighth grade students enrolled in 7 public schools in municipal area of Saraburi province. The opinion towards sexuality was assessed using 16-item that asks about belief, perception, and decision making leading to sexual intercourse, condom use, STDs, and pregnancy prevention. Response options ranged from strongly agree (5) to strongly disagree (1). Data was collected in 2011 -2012 academic year. Data was analyzed using descriptive statistic and t-test independent. The response rate was 92.9% (445), proportion of male students was 57.75%, age range from 13-16 (M = 13.86, SD = .57). Majority of students has appropriate opinion towards sexuality (M = 3.68, SD = 1.28). However, response on individual item indicated the need of sex education related to influence of watching sex VDO or picture on sexual desire (M = 3.10, SD = 1.51), management of sexual desire (M = 3.25, SD = 1.25), adolescent role to get pregnant (M = 2.85, SD = 1.45), responsibility attitudes of male adolescent counterpart (M = 3.44, SD = 1.56), and attitude towards condom use (M = 3.11, SD = 1.31). There were significant different of opinion towards sexuality between male and female students. Female students tend to have higher score which indicate better attitude and knowledge than male students (M = 3.82, SD = 1.28 vs. M = 3.57, SD = 1.26). This finding is useful to guide educators and health personnel to combat sexual engagement among early adolescents. There should be routine screening in order to provide knowledge and sex education that suit the needs of individual teen.

Keywords: Opinion, Sexuality, Thai student, Early adolescent

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Introduction

Adolescent involvement in sexual activity is one of significant problem in Thailand. Current technology advancement in amidst of pornography and cultural expression of sex in public opens door for adolescents to gain access with sexual media content easier. Coupling with not fully develops morality and ethics put adolescents at greater risk of using technology in the wrong way.[1] Adolescent developmental changes that increase sex hormones and curiosity to try new things made this age group at risk for sexually transmitted diseases, HIV[2], and pregnant[3]. Nature of ties to peer group than school and family made adolescents more conforms to surrounding social trend and limit the source of knowledge about reproductive health.

Sexual transmitted diseases and pregnancy among teens is one of problem in Thailand and other country around the world. The Center for Disease Control and Prevention[4] reports that youths in the United States age 15-19 years and 20-24 years are most at risk for sexually transmitted diseases and abortion. The 2011 Thai surveillance of sexual behaviors at risk for HIV infection among students found 4.2% male and 3% female were already had sexual engagement[5]. The average age of first intercourse was 12.2 years for males and 12.3 years for female. Survey conducted in 2005-2011 show that adolescents are likely to increase of having sex and age at first sexual intercourse are less younger.[6] Moreover, secondary school students are at risk of having sexual problems due to premature sexual intercourse or sexual contact without such intention.

Since 2009, incidents of sexually transmitted diseases among adolescents and young people aged 15-24 years were increased.[7] Nearly half of these teens were lack knowledge and ability to think critically about sexual transmitted diseases and pregnancy prevention[7]. There were poor protecting themselves in having safe sex and learning of sex education is also limited to adolescents. Adolescent sexual behavior creates problems not only on their own health but also to their families, society and country. In 2009, teenage pregnancy rate in Saraburi province was 16.67 % higher than 10% target of World Health Organization.[8] There is a need to understand opinion about sexuality, belief, perception, and decision that lead to sexual intercourse among adolescents. Pregnancy prevention and safe sex behaviors to prevent STDs and HIV are important. This study interested in exploring opinions about sexuality in early adolescence. It is intend that results will benefit the development of intervention to delay early sexual involvement and providing effective sex education specific to early teens.

Objective

1. To explore opinion towards sexuality of secondary school students
2. To compare the different of opinion towards sexuality among male and female secondary school students

Methods

Participants

This cross-sectional survey was conducted on the convenient sample of 449 eighth grade students enrolled in 7 public schools located in municipal area of Saraburi province. The sample size was calculated from population of eighth grade students in 2011 academic year was 1,362.[9] Researcher explained study details before obtained permission from school directors, parents, and participants and before obtaining data. The approval for this study was granted by the Research Ethics Committee at Boromrajonni College of Nursing Saraburi, Thailand in 2011.

Instrument

Two questionnaires were used to collect personal data and assess students' opinion towards sexuality. Questionnaires were designed by researcher based on literature review, and opinions of experts as follows.

1. Personal data. The questionnaire designed to collect school setting, age, and gender.

2. The opinion towards sexuality assessed belief, perception, and decision making leading to sexual intercourse, condom use, STDs, and pregnancy prevention. The questionnaire comprised of 16 items with response options ranged from strongly agree (5) to strongly disagree (1). Scores ranging from 1-5 and can be categorized to 3 levels: Low = score 1 - 2.33, Moderate = score 2.34 - 3.67, and High = score 3.68 - 5.00. The scale reliability was .71.

Data analysis

The response rate of this study was 92.90%, 445 complete questionnaires. Data was analyzed using descriptive statistic and t-test independent.

Results

Eighth grade students were from 7 schools in municipal area of Saraburi province. Proportion of male students was 57.75 %. Age ranged 13-16 years (mean = 13.86, SD =.57) as showed in Table 1.

Table 1.
Participants information according to school setting, gender, and age (N = 445)

Demographic data	**n**	**%**
School		
1. School 1	89	19.99
2. School 2	69	15.51
3. School 3	61	13.71
4. School 4	88	19.78
5. School 5	44	9.89
6. School 6	56	12.58
7. School 7	38	8.54
Gender		
Female	188	42.2
Male	257	57.8
Age (Mean **=**13.86, SD =.57)		
13	108	24.3
14	294	66.1
15	42	9.4
16	1	0.2

Proportion of students with proper opinion towards sexuality were 18.7- 67.0. There were 5 individual item with mean score < 3.50: item 4, influence of watching sex VDO or picture on sexual desire (M = 3.10, SD = 1.51); item 5, suitable way for handle sexual desire (M = 3.25, SD = 1.25); item 7, proper time for adolescent to get pregnant (M = 2.85, SD = 1.45); item 8, responsibility of male adolescent (M = 3.44, SD = 1.56); and item 14, attitude towards condom use (M = 3.11, SD = 1.31). as showed in Table 2

Table 2.
Opinion towards sexuality of eighth grade students (N = 445)

item	Mean	SD	N (%) strongly agree	agree	moderate	disagree	strongly disagree
1. There is high chance of having sex when male and female have close contact to each other body	3.94	1.14	182 (40.9)	119 (26.7)	103 (23.1)	16 (3.6)	25 (5.6)
2. Stay in private place one on one with lover often lead to sexual intercourse	4.26	1.01	239 (53.7)	128 (28.8)	50 (11.2)	12 (2.7)	16 (3.6)
3. Drinking alcohol may lead to have sex	3.93	1.13	170 (38.2)	144 (32.4)	85 (19.1)	21 (4.7)	25 (5.6)
4. Watching sex VDO or sexy picture can decrease sexual desire in adolescents	3.10	1.51	99 (22.2)	66 (14.8)	96 (21.6)	61 (13.7)	123 (27.6)
5. Masturbation is a suitable way for release sexual desire of adolescent	3.25	1.25	85 (19.1)	106 (23.8)	146 (32.8)	52 (11.7)	56 (12.6)
6. Adolescent shouldn't have sex no matter what reason	4.32	1.15	298 (67.0)	60 (13.5)	46 (10.3)	15 (3.4)	26 (5.8)
7. Adolescent can have sex if they are ready to get pregnant and taking care a baby	2.85	1.45	119 (26.7)	68 (15.3)	103 (23.1)	72 (16.2)	83 (18.7)
8. Male adolescent can have sex because there will be no problem and no responsibility	3.44	1.56	88 (19.8)	44 (9.9)	75 (16.9)	60 (13.5)	178 (40.0)
9. There is no risk of STDs or AIDs when have sex with friends	3.64	1.49	67 (15.1)	46 (10.3)	68 (15.3)	65 (14.6)	199 (44.7)
10. Adolescent should discuss how to prevent pregnancy and STDs	3.69	1.22	151 (33.9)	110 (24.7)	112 (25.2)	41 (9.2)	31 (7.0)
11. Male adolescent should have condom ready for protection and show responsibility	4.02	1.13	200 (44.9)	121 (27.2)	75 (16.9)	31 (7.0)	18 (4.0)
12. Female adolescent that have condom available show good protection in emergency	3.88	1.25	193 (43.4)	107 (24.0)	77 (17.3)	36 (8.1)	32 (7.2)
13. It is not suitable for female adolescent to tell partner to use condom	3.59	1.51	72 (16.2)	40 (9.0)	83 (18.7)	53 (11.9)	197 (44.3)
14. Condom use reduce sexual enhancement	3.11	1.31	63 (14.2)	74 (16.6)	153 (34.4)	59 (13.3)	96 (21.6)
15. Contraceptive knowledge decrease abortion	3.82	1.23	177 (39.8)	110 (24.7)	87 (19.6)	44 (9.9)	27 (6.1)
16. Female adolescent should refuse having sex that not protect from getting pregnant	4.10	1.18	244 (54.8)	73 (16.4)	75 (16.9)	34 (7.6)	19 (4.3)
Total	3.68	1.28					

Low = 1-2.33; Moderate = 2.34-3.67; High = 3.68-5.00

Comparison of opinions towards sexuality between male and female students found that female students had better scores than male students. There were significant different on 13 items between different gender as showed in Table 3.

Table 3.
Comparison of opinion towards sexuality between male and female students (N = 445)

items	Female (n=188) Mean	Female (n=188) SD	Male (n=257) Mean	Male (n=257) SD	t	p-value
1. There is high chance of having sex when male and female have close contact to each other body	4.23	1.03	3.72	1.16	4.924	.000
2. Stay in private place one on one with lover often lead to sexual intercourse	4.48	0.86	4.10	1.08	4.174	.000
3. Drinking alcohol may lead to have sexual	4.19	0.93	3.74	1.22	4.488	.001
4. Watching sex VDO or sexy picture can decrease sexual desire in adolescents	3.24	1.63	2.99	1.40	1.734	.084
5. Masturbation is a suitable way for release sexual desire of adolescent	3.12	1.39	3.35	1.13	-1.815	.070
6. Adolescent shouldn't have sex no matter what reason	4.63	0.95	4.10	1.23	5.164	.000
7. Adolescent can have sex if they are ready to get pregnant and taking care a baby	2.99	1.53	2.74	1.39	1.836	.067
8. Male adolescent can have sex without any problem and any responsibility	3.63	1.65	3.30	1.48	2.138	.033
9. There is no risk of STDs or AIDs when have sex with friends	3.91	1.53	3.43	1.45	3.402	.001
10. Adolescent should discuss way to prevent pregnancy and STDs	3.64	1.34	3.74	1.13	-.806	NS
11. Male adolescent should have condom ready for protection and show responsibility	3.89	1.16	4.11	1.09	2.040	.042
12. Female adolescent that have condom available show good protection in emergency	3.91	1.24	3.86	1.26	.457	NS
13. It is not suitable for female adolescent to tell partner to use condom	3.70	1.53	3.51	1.49	1.264	NS
14. Condom use reduce sexual enhancement	3.41	1.41	2.89	1.19	4.101	.000
15. Contraceptive knowledge decrease abortion	3.96	1.24	3.72	1.21	2.070	.039
16. Female adolescent should refuse having sex that not protect from getting pregnant	4.48	1.03	3.82	1.22	6.017	.000
Total	3.82	1.28	3.57	1.26		

Low = 1-2.33; Moderate = 2.34-3.67; High = 3.68-5.00
NS = not significant

Discussion

Opinion towards sexuality

Majority of students in this study had suitable opinion towards sexuality. They understand factors and situation that put them at risk of early involvement in sexual activity. Most students agree of not have sexual relation while they are still students. They think that using condom can prevent sexual transmitted disease. However, 35% of male students tend to agree that wearing condom reduce sexual enhancement. Prasartvanakij et al (2009) [10] found that male adolescents who used condom also felt unnatural (64.1%) and reduce sexual enhancement (44.2%). A study[11] also support that the issue of attitude related to using condom is an obstacle for STDs and pregnancy preventions. Therefore, healthcare and educators need to introduce other birth control such as contraceptive pills[12,13]. Proportion of 26.7% in this study indicated that it is fine for students to have sexual intercourse as long as they ready to get pregnant and take care a baby is worrisome. In addition, conversation about pregnancy prevention of teens with partner and related personnel may need to be more often[13] and should do since early adolescent across age.[14]

Female students were found to have opinion on sexuality better than male students in most questionnaire item. Except for the non significant different in some question items which reflect equality and openness including discussion of safe sex with partner, condom use in male partner, and the preparation of condom by female partner.

Suggestion

School should provide sex education according to need and attitude of students such as responsible for sexual intercourse as adult. Furthermore, students should have opportunity to reflect their feeling, thoroughly evaluate their circumstances, and ability to manage problem.

In order to fully understand opinion towards sexuality in adolescents, future study should conduct on students in all age group that represent students from all school settings under government and private sectors.

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Opinions on the Necessity of Multilingualism among the Students in the International Programs in Thailand

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Abstract

Multilingualism is necessary as the world is increasingly interconnected but there are no known reports discussed on this issue among university students in Thailand. The purpose of this survey study is to explore the opinion of students in an international program from four universities in Bangkok toward the necessity of multilingualism. The questionnaires were distributed to 365 students in politics and business programs. The result revealed that 62.5 percent of the sample acquired one more language beside their native language. It indicated that being multilingual is very necessary for the international program student with a mean of 3.06 out of 4. The most commonly given reasons were to facilitate work with foreigners, increase self-confidence in communicating with foreigners, and to understand foreign documents or information. Furthermore, most of them (95.6 percent) think that multilingualism is necessary in ASEAN community and they are interested in learning ASEAN languages, including Mandarin (43.0 percent), Thai (20.3 percent) and Malay (16.7 percent). This study suggests that multilingualism should be encouraged and language courses should also be taught in the international programs especially, Mandarin which is spoken in Singapore and China whose economic and political power has much influence in the international community.

Keywords: multilingualism, international programs.

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Introduction

"One language sets you in a corridor for life. Two languages open every door along the way."—Frank Smith

Language is a tool that helps one communicate and survive in society. It is essential to every human and interaction, because language is used to describe and explain our feelings and desires. "Multilingual" refers to "an individual speaker who uses more than two languages or to a community of speakers where the use of more than two languages is common." (Nkamigbo 2007). A variety of languages exist all over the world. Different languages reflect the cultural backgrounds and various dimensions of the society. Meanwhile, the world is increasingly interconnected; there has been increased cooperation in international politics, economy, and other areas, and the movement of people has brought diverse cultures and languages together. While the world has become more interconnected, it has been questioned whether one's native language and a widely spoken language like English are sufficient. Furthermore, if the world is increasingly homogenized, how is multilingualism necessary for the globalized world?

Research question: "To what extent is multilingualism necessary for the students in the international programs in Thailand?"

As students in the international program, we believe that additional language courses, beyond English, should be included as part of the curriculum to better prepares the students for their future careers. Learning other languages would help to provide a better understanding of different cultures and histories of many countries as part of their studies. Therefore, we strongly believe that this research would significantly be a sign of many people to prepare themselves to engage in a more globalized and multilingual environment. Not only would individuals benefit from learning many languages, but such an emphasis on increased multilingualism would also help Thailand to create more effective global relationships with other world actors.

The results will allow us to assess both how many students view multilingualism as important and to what degree they believe it is necessary. If many students agree that English, the most widely spoken language, is not sufficient for communicating in the globalized world, we recommend that additional language courses be provided as part of the curriculum to develop and improve students' linguistic capacity.

Objective

The main objective of this survey is to study the opinion of the students in international programs toward the necessity of multilingualism. Thus, this work will explore the question, "**To what extent is multilingualism necessary for the students in the international programs in Thailand?"**

Methodology

The research is conducted base on the **quantitative method** in order to obtain an accurate generalized result.

The questionnaires were distributed to 365 students, both male and female in international programs from four Universities in Thailand; Mahidol University (MU), Kasetsart University (KU), University of Thai Chamber of Commerce (UTCC), and Thammasat University (TU) as appear in table 1. The main reason of focusing on these four Universities is because their students are both Thai and foreign since they have been offering several courses in English so the participants would be culturally and linguistically diverse. As each student has a different "mother tongue," one's own native language, it will be more interesting to learn about different perspectives from the result of the survey. Therefore, their opinions are expected to be different depending on their personal backgrounds and studies.

Table 1.
Number and percentage of the students by the University

University	Number	Percent
Mahidol University	53	14.5
Kasetsart University	116	31.8
University of Thai Chamber of Commerce	46	12.6
Thammasat University	150	41.1
Total	365	100.0

This research applies the probability sampling method in order to calculate the size of our sampling. The probability sampling consisted of a stratified random sample and the Yamane sampling formula. This method will help to reduce the size and divide number of the represented students equally, while maintaining the quality of data.

The questionnaires are close ended questions which are divided into two parts; personal data and necessity of multilingualism. The first part starts with the questions that mainly ask participants about their personal data and experience backgrounds on learning languages. This helps us analyze one argument that if the participant thinks English is not enough in the globalized world, even if he/she is a native English speaker; multilingualism is important. These questions allow other foreigners who are not Thai and may not study English as their second language to share their personal information to help us analyze the result with a wider perspective.

The second part is divided into two sub sections; the necessity of multilingualism in general and the necessity in ASEAN community. The first sub section mainly asks how much the multilingualism is necessary for the students in the international programs. The answers will be given in different scores with the Likert's scale; strongly agree, agree, disagree, and strongly disagree. The 11 questions are designed to support the benefits of multilingualism concerning global interconnectedness in term of politics, economy, and socio-culture. Another 4 questions are created to indirectly ask the importance and necessity of English in today's world. The second sub-section focuses on the necessity of multilingualism in the ASEAN community. The questions were created to ask the participants' opinion on whether learning an ASEAN language is necessary and important for integration and how aware and interested they are in learning ASEAN languages.

Researchers collected data by randomly distributing 365 copies of the questionnaires to the students in international programs from four Universities in Thailand namely MU, KU, UTCC, and TU. Finally, researchers analyzed personal data by using frequency and percentage with the program SPSS. The necessity of multilingualism both in general and toward the ASEAN community will be analyzed by applying mean and standard deviation (S.D.), and SPSS will be used as well. Mean of the necessity of multilingualism will be interpreted according to the following criteria.

Necessary level	**Mean**
Not necessary	1.00-1.74
Less necessary	1.75-2.49
Very necessary	2.50-3.24
Extremely necessary	3.25-4.00

Result

According to table 2, among 365 students, 90 are 17 to 18 years old; 12.6 percent were male and in that age range whereas 12.1 percent were female which resulted to the total of 24.7 percent of the participants. There were 189 samples of those students aged 19 to 20 years old; 23.6 percent were male and in that age range whereas 28.2 percent were female, which resulted in a total of 51.8 percent of the participants. There sample included 42 students who are over 21 years old; 11.5 percent of participants were male and in that age range whereas 12.1 percent were female which resulted to the total of 23.6 percent of the participants.

The majority of the sample were Thai students in the international programs from the four institutions, making up 89.6 percent of the total number of the samples, and only 10.4 percent were other nationalities. Among those 10.4 percent, there were 19 nationalities represented in the survey, which was also dominated by students from China. Therefore, the result of this survey research predominately reflects the opinion of the Thai international program students of the major universities in Bangkok.

Table 2.
Numbers and percentage of students by sex and personal data

	male		female		Total	
Personal data	N	%	N	%	N	%
age						
17-18 years	46	12.6	44	12.1	90	24.7
19-20	86	23.6	103	28.2	189	51.8
21up	42	11.5	44	12.1	86	23.6
Year of education						
first year	97	26.6	91	24.9	188	51.5
second year	39	10.7	55	15.1	94	25.8
third year	27	7.4	28	7.7	55	15.1
forth year	11	3.0	17	4.7	28	7.7
Total	174	47.7	191	52.3	365	100.0

Table 3 demonstrates language skills of each participant from four Universities. The result reveals that 31 percent of the sample students acquire two languages beside their native language, although, most of the participant acquire only one language which could be English and another language that they learn after their native one. Only 6.0 are able to speak three languages and 0.5 percent of sample students had acquired four languages. Apart from English which everybody had acquired, Chinese is the most popular among participants with 17.8 percent of the total sample speaking it. Other languages are also being spoken among participants, such as French (5.5 percent), Spanish (5.2 percent) and Japanese (4.1 percent).

Table 3.
Numbers and percentage of students by sex and language skills

Personal data	male		female		Total	
	N	%	N	%	N	%
Numbers of other language						
1	109	29.9	119	32.6	228	62.5
2	54	14.8	59	16.2	113	31.0
3	11	3.0	11	3.0	22	6.0
4	0	0	2	.5	2	.5
Total	174	47.7	191	52.3	365	100.0
Language						
English	174	47.3	191	52.3	365	100.0
French	11	3.0	9	2.5	20	5.5
Spanish	13	3.6	6	1.6	19	5.2
Chinese	26	7.1	39	10.7	65	17.8
Russian	2	.5	0	0	2	.5
German	6	1.6	6	1.6	12	3.3
Japanese	7	1.9	8	2.2	15	4.1
Korean	3	.8	6	1.6	9	2.5
Dutch	1	.3	2	.5	3	.8
Portuguese	5	1.4	2	.5	7	1.9
Other	3	.8	5	1.4	8	2.2

Table 4 illustrates the necessity of multilingualism and its level of necessity. **The majority of sample students view multilingualism as a very necessary instrument to survive in today's world with a mean of 3.01.** Most of the participants have answered that multilingual is extremely necessary to help increase self-confidence in communicating with foreigners, facilitate work with foreigners and help to understand foreign documents or information. However, the result also indicates the awareness and interest of students in the sample in becoming multilingual as they have answered that multilingualism is extremely necessary for students in international program as well as essential to live in the globalized world. In contrast, a high number of participants still maintains the benefits of English as a widely spoken language in the 21st century. Relatively high numbers of sample students view English as a very necessary language in the globalized world and have neglected other languages.

Table 4.
Means and standard deviation of necessity of multilingualism

Items	Min	Max	Mean	S.D.	Level of Necessity
1. Being multilingual facilitates your work with foreigners.	2	4	3.42	0.53	Extremely
2. Being multilingual helps to increase self-confidence in communicating with foreigners	2	4	3.45	0.55	Extremely
3. Multilingualism helps in understanding foreign documents or information.	1	4	3.43	0.59	Extremely
4. Only English is necessary in the globalized world.	1	4	2.53	0.83	Very
5. Speaking only English is enough to survive in the globalized world.	1	4	2.40	0.76	Less
6. Multilingualism may create misinterpretation in international communications.	1	4	2.30	0.70	Less
7. Because English is the most widely spoken language, other languages are no longer important.	1	4	2.96	0.87	Very
8. English is not the only language in the world that is widely spoken.	1	4	3.21	0.66	Very
9. English will play a less important role in the globalized world in the future.	1	4	2.51	0.76	Very
10. Multilingualism helps to foster economic cooperation.	1	4	3.12	0.57	Very
11. Multilingualism helps one understand other cultures.	1	4	3.21	0.60	Very
12. Multilingualism helps to reduce international disputes.	1	4	2.96	0.65	Very
13. Multilingualism accelerates global economic development.	1	4	3.10	0.57	Very
14. Multilingualism should be necessary for students in international programs.	1	4	3.31	0.60	Extremely
15. Apart from English and your native language, it is essential to have another language to live in the globalized world.	1	4	3.27	0.59	Extremely
Overall necessity of multilingualism	2.07	3.73	3.01	0.26	**Very**

The necessity of multilingualism in ASEAN

The information derived from the survey has shown that multilingualism is necessary for AEC for both male and female samples taken from the four universities which the two faculties were Political Science and Business Administration. With the result of 95.6 percent in which 69.1 percent of these participants are interested to learn other ASEAN languages, especially Mandarin being the highest demand among these participants (Table 5). With Thai being the second highest demand among the ASEAN languages.

Table 5.
Numbers and percentage by sex and necessity of multilingualism in ASEAN

Opinion	male		female		Total	
	N	%	N	%	N	%
Multilingualism is necessary for AEC						
yes	166	45.9	180	49.7	346	95.6
no	8	2.2	8	2.2	16	4.4
total	174	48.1	188	51.9	362	100
Interested to learn any ASEAN languages						
yes	117	32.3	133	36.7	250	69.1
no	57	15.7	55	15.2	112	30.9
total	174	48.1	188	51.9	362	100
ASEAN languages that student want to learn						
Thai	43	11.8	31	8.5	74	20.3
Indonesia Bahasa	25	6.8	23	6.3	48	13.2
Laotian	19	5.2	6	1.6	25	6.8
Tagalog	10	2.7	17	4.7	27	7.4
Burmese	15	4.1	13	3.6	28	7.7
Khmer	6	1.6	8	2.2	14	3.8
Vietnamese	29	7.9	21	5.8	50	13.7
Mandarin	70	19.2	87	23.8	157	43.0
Tamil	3	.8	2	.5	5	1.4
Malay	32	8.8	29	7.9	61	16.7

According to table 6, it represents the necessity level of multilingualism in ASEAN in different dimensions. The result has revealed that multilingualism is **very** necessary in the ASEAN community. The participants mostly agree with the fact that ASEAN languages can reduce conflict and unreliability, and can increase mutual understanding among member states, which appears with the mean of 3.20. In addition, the participants view ASEAN language as a very necessary instrument in helping to improve the sense of community. However, most of the participants appeared to be confident about the benefit of English with the mean of 3.16 and tend to agree that only English is **very** sufficient for the ASEAN community. Therefore, the two different perspectives of participants reflect the importance of multilingualism and English. English still remains very important in South East Asia countries but people tend to be more aware of the necessity and the benefit of multilingualism in assisting and propelling the sense of ASEAN integration in the near future.

Table 6.
Mean and standard and deviation of the necessity level of multilingualism in ASEAN community

Opinion	min	max	Mean	S.D.	Level of Necessity
1. Communicating in English is sufficient for the ASEAN community.	1	4	3.16	0.69	Very
2. Learning an ASEAN language fosters solidarity among state members.	1	4	3.12	0.49	Very
3. More knowledge of ASEAN languages among member states will improve the sense of community.	1	4	3.20	0.56	Very
4. Expanded knowledge of ASEAN languages can reduce conflicts and unreliability, and can increase mutual understanding among member states.	1	4	3.20	0.61	Very

Discussion

Owing to the world of multilateralism in which globalization has a strong impact on bringing world citizens closer through the use of politics, economy, cultures, and languages-- multilingualism has become more important and necessary for those who engage in the world of interconnectedness because English alone does not suffice to deal with the world challenges we are now facing (Cenoz 2004).

The survey has revealed that from several international programs of the four universities, 62.5 percent of the sample can communicate in two languages, one as their native language and the other as their second language. The result, however, shows that although Thai is the only the official language of Thailand, many Thais as the majority, as well as foreigners are still concerned about another language. Thirty-one percent of the sample students acquired two languages beside their native language, although, most of the participants had acquired only one language which could be English and another language that they learn after their native one. One of the main reasons that the majority of Thai residents are able to communicate in only one or two languages, as maximum, besides their native language is probably because Thais have not yet shared the sense of belonging within the regional level-- not as much as the EU, for instance. Some may claim that Thais are in fact nationalistic and only learn other foreign languages, both Western and Eastern, because of their economic benefits not for amity. According to the survey result, 17.8 percent think that Chinese is the second most used language apart from English. Moreover, other popular languages also include French, Spanish, and Japanese. It has been evident that many prefer learning and communicating in languages that are spoken in most of the developed or higher developing countries.

Being "very necessary," multilingualism has been viewed as a tool to help communicate with foreigners, facilitate work with foreigners, as illustrated by the remark from US President Obama on foreign language that *"...having foreign language, that's important too. That makes you so much more employable..."* (Obama 2010). However, it has also demonstrated that many still maintain the benefits of English as a widely spoken language in the 21st century. As students in the international program, we think that one of the prominent points is that many Thai students have found other languages to be difficult and time-consuming to learn. Moreover, some universities, such as Thammasat University, do not provide other language courses besides English for every international program. We do think that other languages besides our native language and English are also very important for our future usage, and should be strongly promoted in the curriculum. Students should possess at least two or three languages because one monolingual is too normative and mainstream base on the statement that provided in the book titled *Beyond Bilingualism: Multilingualism and Multilingual Education*. Governments in many countries deliberately present a biased picture of monolinguals as normative by the certain language policies that they declare. Thus, approximately 200 countries recognize two or more official languages and there are many more multilingual individuals in the world than there are monolingual. From our point of view, Thailand, too, should implement those kinds of policies to encourage the younger generation to learn many languages in order to be able to compete with others on an international level.

For ASEAN, the survey has shown that multilingualism is necessary for AEC and Mandarin is the top language to concern. Although English is already widely spoken in ASEAN, many still see the necessity of other languages. As the result illustrating that Thai is the second highest in demand among the ASEAN languages, however, we think that the reason is probably because the participants of the survey are residing in Thailand and Thai is certainly necessary for them as many Thais do not speak very much of other languages. Moreover, the chief reason of viewing the necessity of ASEAN languages as helping to reduce the conflict and unreliability, increase mutual understanding among member states, and improve the sense of community because multilingualism could help us to understand our neighboring's culture and their way of living as learning other languages provides insight into the people, culture, and traditions of other countries (Edwards 2011). By understand more about each other linguistically and culturally, people to people relations among member countries will be stronger. As a result, state to state relations would be improved and this can make a lot of progress in the development of ASEAN integration.

Suggestion

According to the results gathered from this survey research, there are a significant numbers of students in the international program who are interested in learning other languages beside English as well as other ASEAN languages with Mandarin being the highest in demand. China is increasingly becoming more powerful not only at the regional but also at the global level. Based on this study, research hence suggests that multilingualism should be strongly encouraged at the university level or even at the high school level in order to get students ready for the changing circumstance of international politics and global economic orders. Besides that, the expansion of alternative language courses will allow the students to enhance communication and understanding of the international societies. Learning and acquiring as many languages as they could will widen their opportunity in further study and career as well.

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The Attitude and Performance of Thai Nursing Students towards Nursing Care for Elderly *

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Abstract

Background: Rising of aging population in Thailand required attentive high quality nursing care. Attitude and performance of nurses since undergraduate students can impact health of elderly.

Purpose: This study evaluated attitude and performance of nursing students on nursing care for elderly at Baromarajonani College of Nursing, Saraburi.

Methods: The secondary data analysis came from the survey conducted in June to July 2011. Participants were 234 undergraduate nursing students, years 2-4 with and without experience of elderly care. Three self-report questionnaires were used to evaluate previous elderly care experiences, attitude and performance in geriatric nursing.

Results: The attitude and performance towards nursing care for elderly of overall students and in different years of nursing program were at good level. The mean score attitude was 3.94 (SD = 0.53) and the mean score performance was 3.73 (SD = 1.51). Nursing students with or without experiences of elderly care had attitude and performance on geriatric nursing care at good level with mean score 3.94 and 3.72, respectively. However, the third year nursing students were found to have the highest mean scores of attitude and performance compared to the 2nd and 4th year nursing students.

Suggestion: This study suggests that nurse educators should place more emphasize on finding strategies to maintain high attitude and performance of nursing care for elderly specific to the 4th year students. In addition, nurse educators should identify potential threats that alter positive attitude and performance of nursing care to elderly.

Keywords: Attitude, Performance, Nursing, Elderly, Student

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Introduction

The attitude towards elderly of healthcare personnel has significant impacts on service behaviors, quality of care, and states of health of elderly (Jacelon, 2002). Nurses with positive thinking were found to work with more inspiration, motivation, and committed to delivery high nursing care quality. These nurses improve their skills and quality care continuously to achieve expected patient outcomes (Mellor, Chew, & Greenhill, 2007). Previous study found relationship between positive thinking and deep understanding in elderly patients. On the other hand, staff with negative attitude towards elderly were found to have higher misunderstanding, neglect, poor quality care, lack of awareness to human rights and less sensitive to individual needs (Holroyd, Dahlke, Fehr, Jung, & Hunter, 2009; Topaz & Doron, 2013).

In Thailand, aging population account for 10% of total proportion makes the country became aging society. The increased life expectancy made elderly more vulnerable in amidst of physical, mental, and spiritual decline. In delivery quality care to elderly, nurses need to understand common problems due to reclining stage, and changes in aging. They required essential nursing skills to provide holistic care according to problems and individual needs of elderly. Nurses also provide nursing activity with tender and care covers aspects of health promotion, disease prevention, health care, and recovery.

Health problem of elderly often complicate with multiple chronic illness that required attentive assistance and specialized caring skills (Xiao et al., 2008; Holroyd et al., 2009). The shortage of staff nurse and lack of nursing expertise created problems in providing care to patients and geriatric clinical practice of undergraduate nursing students. Previous study indicated that positive attitude towards elderly is crucial on selecting work unit and further nursing education. Nurse educators should focus on refining attitudes and nursing performance towards elderly since undergraduate level (Aroonsang, 2010). Students should have rich experiences in humanized care and learn to understand aging problems and related issues (Shen & Xiao, LD, .2011).

Objectives

This study investigated attitude and performance on elderly care of undergraduate nursing students who have and have not previous elderly care experience.

METHODS

This study was a secondary analysis of cross-sectional survey conducted in 234 undergraduate nursing students, 2^{nd} - 4^{th} year at Boromarajonani College of Nursing, Saraburi in June to July 2011. This study was approved by the Human Subject Research Protection Ethic Committee at Boromarajonani College of Nursing, Saraburi.

Measure

Three self-reported questionnaires were used as below:

1. Demographic data related to age, years of nursing education, GPA, and experiences with geriatric care in family.
2. The 12-item geriatric care attitudes assessed positive and negative opinions, feeling, and emotions while delivery nursing care to elderly. Response options ranged from strongly agree = 5 to strongly disagree = 1. Scale reliability was .83.
3. The 12-item geriatric care performance assessed students' ability on nursing care related to response options were rarely = 1 to almost always = 5. Cronbach's alpha was .93.

Data analysis

Descriptive statistic was used to analyze personal data for mean scores of attitudes and practice on geriatric nursing. The mean score interpretation were: Good level ≥ 3.51, Moderate level = 2.51-3.50, and Low level ≤ 2.50.

RESULTS

Participant characteristic

Out of 234 nursing students, majority were female (90.6%), 34.6% (81) second year students, 33.3% (78) third year students, and 32.1% (75) fourth year students. For age, the highest proportion was 20 (40.2%), 17-19 (23.1%), 21 (19.2%), and 22-24 (17.5%). For GPA, 59.3% had GPA 2.50-2.99 and 4.2% had GPA > 3.50. Proportion of 26.1% (female = 25.2% vs. male = 0.9%) nursing students reported of having experienced in providing care for elderly in their family for a period of 1-10 years (Table 1).

Table 1.
Participants characteristics gender, age, and GPA by experience of care for elderly family member (N = 234)

Personal data	Geriatric care in family				Total	
	No		Yes			
	N	%	N	%	N	%
Gender						
Male	20	8.5	2	0.9	22	9.4
Female	153	65.4	59	25.2	212	90.6
Age (yr)						
17-19	42	17.9	12	5.1	54	23.1
20	71	30.3	23	9.8	94	40.2
21	34	14.5	11	4.7	45	19.2
22-24	26	11.1	15	6.4	41	17.5
GPA						
2.00 - 2.49	32	13.7	7	3.0	39	16.7
2.50 - 2.99	91	38.9	36	15.4	127	54.3
3.00 - 3.49	30	12.8	9	3.8	39	16.7
3.50 - 4.00	5	2.1	4	1.7	9	3.8
Not specify	15	6.4	5	2.1	20	8.5
Years in nursing program						
2nd	59	25.2	22	9.4	81	34.6
3rd	62	26.5	16	6.8	78	33.3
4th	52	22.2	23	9.8	75	32.1
Total	173	73.9	61	26.1	234	100.0

Attitudes toward geriatric nursing care

The overall attitude towards geriatric nursing care was at good level (Mean = 3.94, S.D. = 0.53). When examined in each item, the top three highest attitudes were the awareness related to human dignity when provide nursing care to elderly (mean = 4.64, S.D. = 0.56), encouraging elderly to daily activity (Mean = 4.48, S.D. = 0.66), and willing to take time in providing care to elderly (Mean = 4.09, S.D = 0.82). Whereas the top three lowest attitudes were the unsuccessful health prevention among elderly is due to recline age (Mean =3.18, S.D. = 1.03), tiredness when taking care to elderly (Mean = 3.53, S.D. = .94), and dislike when elderly not cooperate in healthcare (Mean =3.65, S.D. = .94) as showed in Table 2.

Table 2.
Mean score attitude towards geriatric care (N = 234)

Attitude	Mean	S.D.	Level
1. Boring to take care elderly with dependence living	3.97	.96	Good
2. Willing to take time providing care to elderly	4.09	.82	Good
3. Tired of taking care to elderly	3.53	.94	Good
4. Feeling depress and sad when taking care for elderly	3.76	.97	Good
5. Frustrating to give information repeatedly	3.85	.88	Good
6. Waste of money to restore health of elderly	4.06	1.01	Good
7. Health promotion enable elderly to endure activity at longer period	4.08	.84	Good
8. Unsuccessful health prevention among elderly due to recline age.	3.18	1.03	Moderate
9. Dislike when elderly not cooperate in healthcare.	3.65	.94	Good
10. Human dignity is essential when provide nursing care to elderly.	4.64	.56	Good
11. Encourage senior to have daily activities according to their own ability.	4.48	.66	Good
12. Provide information to seniors with memory loss is necessary.	3.97	1.04	Good
Total	3.94	0.53	Good

Performance on geriatric nursing care

The overall performance towards geriatric nursing care was at good level (mean = 3.73, S.D. = 1.51). When examined in each item, the top three highest attitudes were the provide nursing care in respect to human dignity (mean = 4.10, S.D. = 0.74), encourage practice on health promotion and disease prevention (mean = 3.85, S.D. = 0.70), and encourage perceptions and awareness on health promotion and illness prevention of elderly and family (mean = 3.74, S.D. = 0.65). Whereas the three lowest performance were to provide information and coordinate the use of resources in community to promote health care of elderly (mean = 3.53, S.D. = 0.62), give consultant on common health problems of elderly (mean = 3.65, S.D. = 0.68), and support for the environment changes that promote health (mean = 3.68, S.D. = 0.66) as show in table 3.

Table 3.
Mean score of geriatric care performance (N= 234)

Performance	Mean	S.D.	Level
1. Encourage perceptions and awareness on health promotion and illness prevention of elderly and family.	3.74	0.65	Good
2. Assess readiness on health promotion and illness prevention of elderly.	3.70	0.65	Good
3. Provide knowledge of health promotion and illness prevention to elderly and family	3.71	0.66	Good
4. Promote self confident on health promotion and illness prevention of elderly.	3.70	0.62	Good
5. Provide information and coordinate the use of resources in community to promote health care of elderly.	3.53	0.62	Good
6. Give advices to manage common health problems of elderly.	3.70	0.63	Good
7. Give consultant on common health problems of elderly.	3.65	0.68	Good
8. Support for the environment changes that promote health.	3.68	0.66	Good
9. Encourage practice of health promotion and disease prevention.	3.85	0.70	Good
10. Promote self-care using local wisdom and belief that not put health in danger	3.70	0.75	Good
11. Arrange activities that promote self-value of elderly.	3.69	0.71	Good
12. Provide nursing care in respect to human dignity	4.10	0.74	Good
Total	3.73	0.51	Good

Geriatric care attitudes and performance by experiences and years in nursing program

Findings indicated that geriatric care attitudes and performance of nursing students with or without experiences of elderly care were at good level with mean score 3.94 and 3.72, respectively. Nursing students from different years in undergraduate program were found to have average score of geriatric care attitudes and performance at good level, ranged from the 3rd year (Mean = 3.98, S.D. = 0.55 and Mean = 3.9, S.D. = 0.48), the 4th year (Mean = 3.96, S.D. = .44 and Mean = 3.67, S.D. = 0.49), and the 2nd year (Mean = 3. 87, S.D. = 0.59 and Mean = 3.61, S.D. = 0.51) as showed in Figure 3.

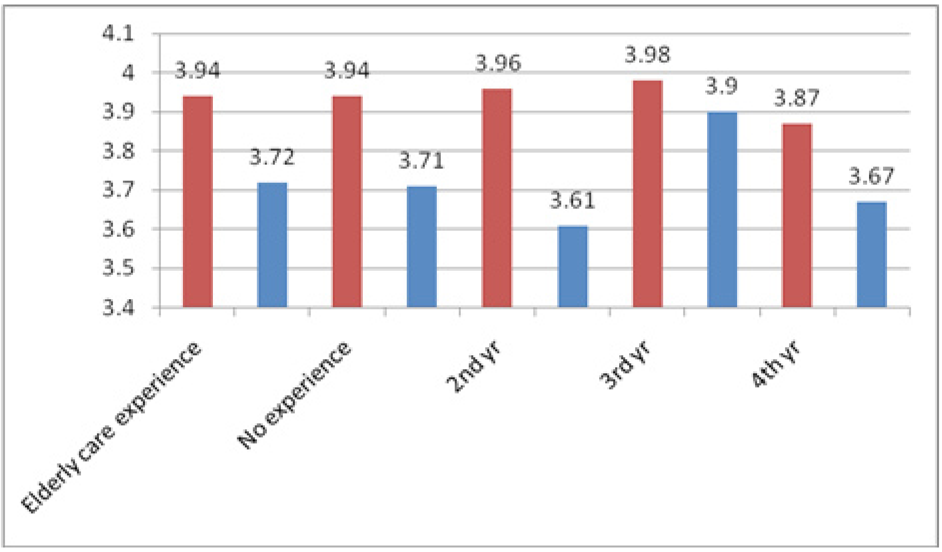

Figure 1. Geriatric care attitudes and performance by years of education and elderly care experiences
Low = < 1.66, Moderate = 1.66-3.33, High = > 3.33
Attitudes Performance

DISCUSSION

This study explored overall attitude and performance on geriatric care of nursing students at Boromarajonani College of Nursing, Saraburi. Data analyses by years of education found attitudes and performance on geriatric care of 2nd to 4th year nursing students were at good level. Comparisons between students with previous elderly care experience (26.1%) or without previous elderly care experience found similar attitudes and performance at good level. The mean attitude score of overall students of 3.73 out of 5 in this study was higher than a moderate level (3.32 out of 5 points) of nurses' attitudes towards older people in Israel. Whereas the Mean performance score of geriatric care of overall nursing students at Saraburi was at good level (3.94 out of 5 point) compare to the low level of mean knowledge score for elderly care found among Israeli nursing students (Topaz & Doron, 2010).

Previous research found that attitudes toward elderly are significant factors that hinder quality of care to elderly (Holroyd, Dahlke, Fehr, Jung, & Hunter, 2009). A study conducted in Chinese nursing students with different years of education found better attitudes towards elderly among the first year students than the other years in nursing program. The comparison of factors affecting nursing students' intention to work with older people found that students age younger than 20 were more likely to work with the elderly in the future (Shen & Xiao, 2011). In contrast, a study of nursing students' attitudes towards elderly in Jordan indicated that lack of knowledge about geriatric among the first year nursing students resulted in negative attitudes towards the elderly (Hweidi & Al-Obeisat, 2006).

Attitudes and performance towards nursing care for elderly were found to increase throughout geriatric nursing course. The interaction between nursing students and senior clients in geriatric nursing practice promote positive attitudes and good knowledge development toward elderly (Hweidi & Al-Obeisat, 2006; Ekaterini, Panayota, Athena, & Chrysoula, 2009). Nursing education in the United States found statistically significant increased of student attitudes toward the elderly after completion of the hospital training (Buttner, 2008). Consistent with a study in Australia found that the ability to practice and attitudes towards geriatric nursing care of undergraduate nursing students increased through participating in rehabilitation nursing care for elderly (Rogan & Wyllie, 2002). However, the 3rd year nursing students at Boromarajonani College of Nursing at Saraburi in this study were found to have the highest mean scores of attitudes and performance compared to the 2nd and 4th year nursing students. This study provides suggestion that nurse educators should place more emphasize in their teaching and identify potential threats to maintain higher attitudes and performance towards geriatric care among the 4th year students.

Conclusion

Results showed that students had developed good attitude and high performance on nursing care for elderly despite of different previous geriatric experiences in family and years in nursing program. This study provides support to the quality of teaching in geriatric nursing at Boromarajonani College of Nursing Saraburi.

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Foot-care Behavior in Elderly Patients with Diabetes *

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Abstract

Diabetic foot care is an effective preventing method to avoid limb amputation especially for elderly. This secondary data analysis examined the incidence and causes of diabetic foot ulceration, foot care behaviors, and relationships between foot care behaviors and history of diabetic foot ulcers. Participants were the convenient sample of 243 elderly with diabetes who received care at Saraburi hospital, Thailand. They were asked to complete the demographic and a diabetic foot cares questionnaires. Cronbach's alpha coefficient of this entire scale was 0.70.

Findings revealed that the incidence of diabetic foot ulcers among Thai elderly with diabetes was 25.5%. The most common causes of foot injury were sharp object penetration (37.5%), accidental fall (10.9%), and similar between bleb, infection, and ingrown toe nails (9.4%). For foot care behaviors, the elderly patients with diabetes were less wearing socks with shoes (10.7%), less wearing proper protected shoes (12.4%), and infrequent applying lotion at foot (12.8%). In addition, there were significant differences between history of foot ulcers and wearing socks with shoes ($\chi^2 = 7.24$, $p < .05$) and wearing proper protective shoes ($\chi^2 = 4.44$, $p < .05$).

This study demonstrated that elderly people with diabetes should pay more attention in taking good care of their feet in order to prevent foot ulcers and further complications. Wearing socks and proper shoes should be promoted in diabetic foot self-care behaviors among elderly patients with diabetes in Saraburi province.

Keywords: foot care behavior, elderly, diabetes

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Introduction

Diabetes is a chronic health problem that often causes severe consequences to elderly than other age group. The proportion of diabetes dead within 5 years of diagnosis was 80% which higher than breast cancer or colon cancer (Moulton, 2013). Diabetic foot ulcers are the major risk factor which often results in lower extremity amputations (Richman, Schub, & Pravikoff, 2013). The raid rise in the incidence of amputation was found among developed and developing countries that resulted in disability and patients' living dependent family members (Vamos et al, 2010). In 2010, there was 26.9% of US citizen age > 65 diagnosed with diabetes and 60% among this went through non-traumatic lower-limb amputations (Centers for Disease Control and Prevention, 2011).

In Thailand, diabetes among elderly population has increased from 14.3% in 2003 to 15.9 in 2009 (Prachuabmoh, 2012). There were 43.5% of the elderly found at risk of having foot ulcers. The incidence of diabetic foot ulcers was 3.36%, which required amputation of toe for 1.12% and foot for 0.18 % (Chantharaesna, 2011). These reports reflected current situation and needs for better promoting foot care among elderly with diabetes at primary and secondary healthcare settings.

Previous studies indicated positive relationship between foot care behaviors and health outcomes (Lapthawee, 2003); moreover, foot care experience was found to be a predictor of foot care behaviors (Churpan, 2007). For promoting proper foot care and prevent amputation required the examination of causes and risk factors such as triggering events from wearing tight shoes and bare foot. The recommended good foot care can be done by thoroughly cleaning, wearing socks and shoes, foot exercise, foot massage, walk and examine foot carefully (Pataky & Vischer, 2007).

Risk factors related to foot ulcers were uncontrolled HbA1C, peripheral neuropathy, peripheral vascular disease, deformity, and calluses (Pansab, 2010). Proper foot care will decrease risk of having foot ulcers. Cohort study comparison found lower incidents of foot ulcers in patients with good foot care who examined and applied lotion at feet daily than patients with poor foot care behavior for 9% vs 39.8 %, respectively (Chellan et al, 2012). A study conducted on 30 Thai elderly found better foot care behavior at good level of the group without foot ulcers compared to moderate foot care behavior of the group with foot ulcers (Sreesarakham, 2007). There is lacking of information about the causes of foot ulcers and need further examination in order to promote foot care behavior among elderly with diabetes in Thailand.

Objectives

1. To explore incidence and causes of foot ulcers among elderly with diabetes.
2. To examine foot care behaviors of elderly with diabetes.
3. To examine relationships between foot care behaviors and experiences of diabetic foot ulceration.

Methods

This descriptive study was the secondary data analysis from the research on foot care behavior of elderly patients received care at Saraburi hospital (Krirkgulthorn et al, 2009). Participants were the 243 of convenient samples of elderly with diabetes received treatment in outpatient and inpatient at Saraburi hospital.

Measures

1. Demographic data were health information, gender, age, marital status, income, and years diagnosed with diabetes, blood sugar, foot ulcers, and caused of ulceration.

2. Foot care behavior comprised of 15 items related to cleaning, wearing socks, shoes, injury prevention, foot massage, foot exercise, and foot examination. Response options were 3-point Likert scale ranged from Not at all to Always. Cronbach's Alpha Coefficient was 0.70.

Data analysis

Demographic data were analyzed using descriptive statistic of mean, standard deviation, and percentage. Relationship between foot care behaviors and diabetic foot ulcers were evaluated using Chi square statistic.

Results

Participant characteristics

Participants were patients with diabetes age 60-93 with mean age 69.2 (SD = 6.12). majority were female (73.3%), married (67.5%), primary education (67.1%), not working (70.4%), and had monthly income less than 5,000 baht or 150 USD (48.7%). For diabetes information, 41.5% were diagnosed within 6-10 years; blood sugar ranged 62 – 300 mg%, mean fasting blood sugar was 145.4 (SD = 44.0), 66.3% had blood sugar higher than normal (> 126 mg%), 10.8% had blood sugar in normal range (< 100 mg%), and 55.6% had neuropathy as showed in Figure 1

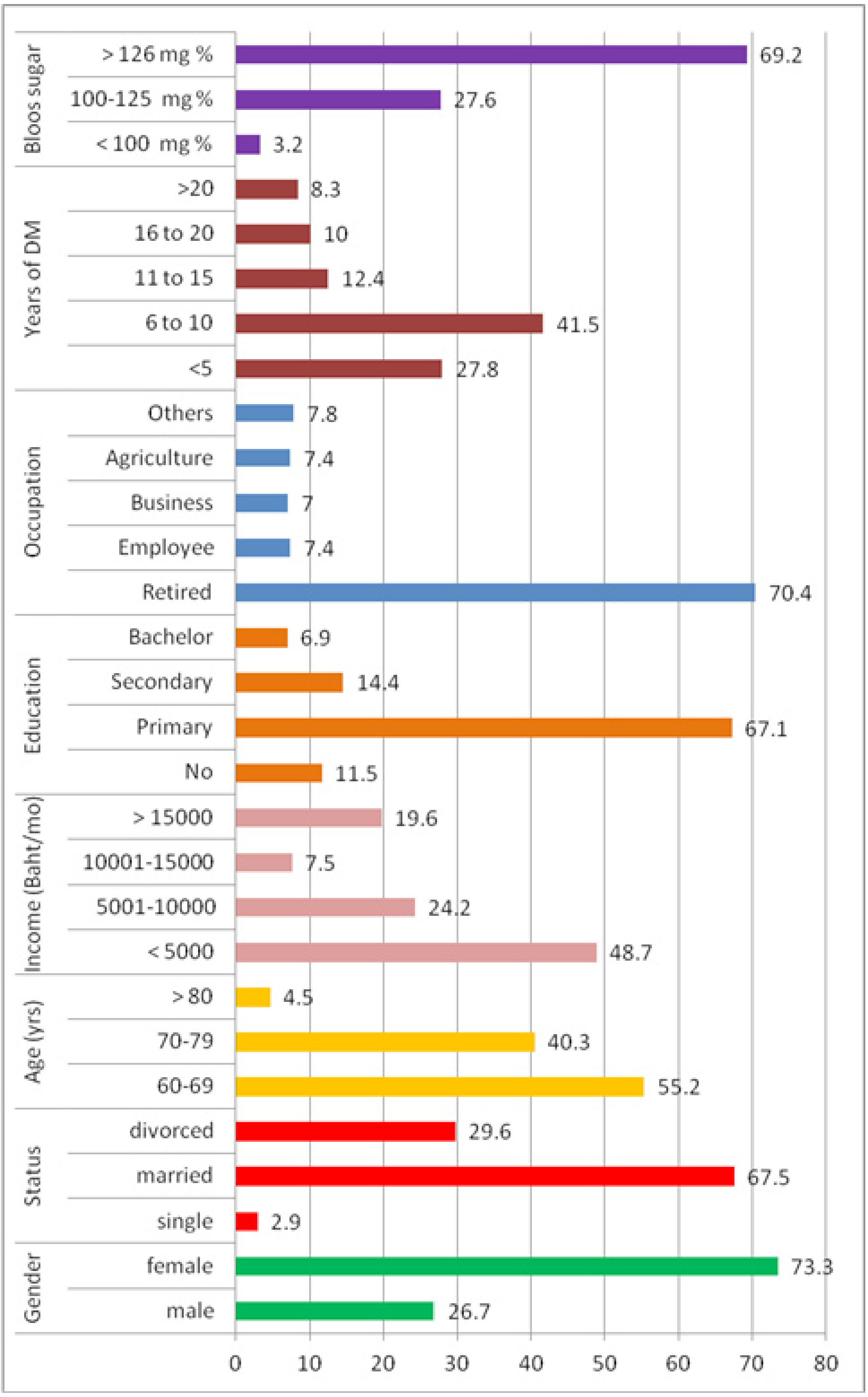

Figure 1. Demographic data and diabetes information of elderly participants (N = 243)

Incident and causes of foot injury

Finding revealed that 25.5% of the elderly with diabetes in this study used to have foot ulcers. The major causes of foot ulcers were injured from sharp object penetration (37.5%), fall (10.9%), bleb/ingrown/infection (9.4%), and unknown (17.2%). Whereas 55.6% had neuropathy symptoms as showed in Figure 2.

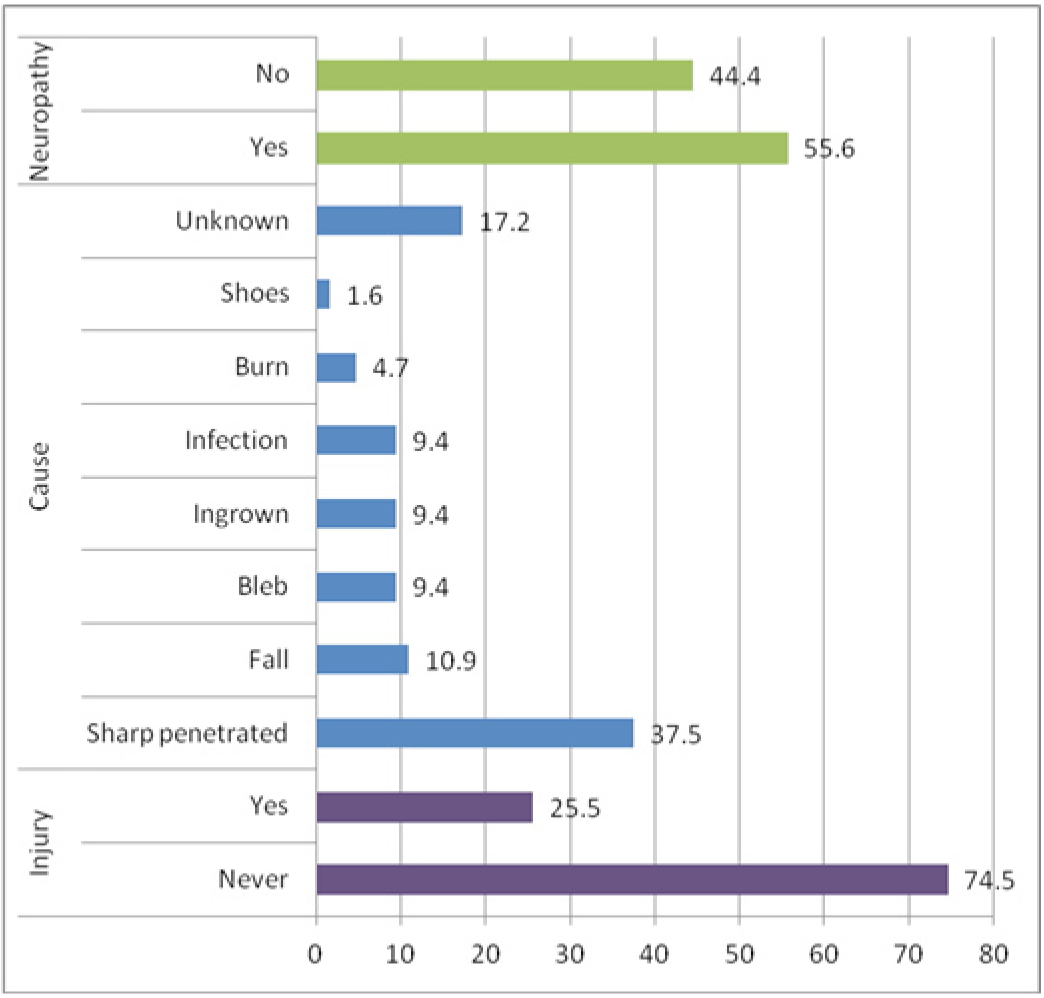

Figure 2. Causes and incidents of foot injury

Diabetic foot self-care behavior

Finding revealed that majority of diabetes elderly (80%) had foot care behavior at good level and routinely wearing shoes when go outside (92.6%), wearing proper shoe size (92.6%), and walk carefully (81.4%). However, the elderly in this study were found not frequently wearing socks with shoes (10.7%), wearing well protect shoe (12.4%), and applying moisturizer lotion at feet (12.8%) as showed in Figure 3.

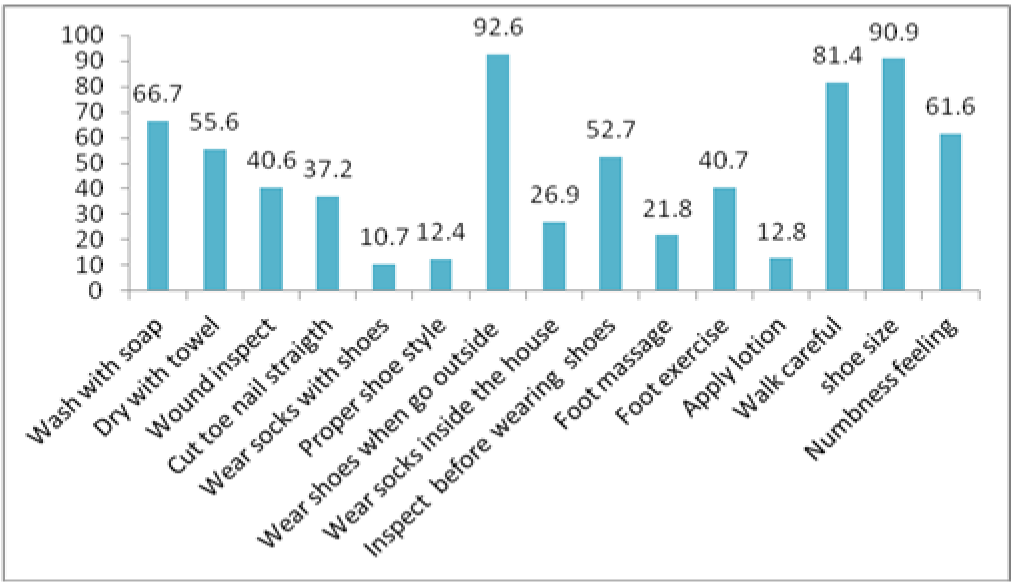

Figure 3. Percent of elderly with diabetes who always performed foot care

Diabetic foot ulcers according to foot care behavior

Comparisons of diabetic foot ulcers according to foot care behaviors found that elderly with diabetes who always or regularly do self foot care had lower percentage of foot ulcers. Chi square test revealed significant different between wearing socks with shoes ($\chi^2 = 7.24$, $p < .05$) and type of shoes ($\chi^2 = 4.44$, $p < .05$) as showed in Table 1.

Table 1.
Comparisons of diabetic foot ulcers according to foot care behaviors (N=243)

Foot care behavior	Foot ulcer n=62	%	Never	%	**Chi-square**	**p-value**
Wash with soap	46	74.2	116	64.1	2.12	.15
Dry with towel	41	66.1	94	51.9	3.76	.052
Wound inspect	26	41.9	71	40.1	0.06	.801
Cut toe nail straight	23	37.1	67	37.2	.00	.989
Wear socks with shoes	1	1.6	25	13.9	7.24	.007
Proper shoe style	3	4.8	27	15.1	4.44	.035
Wear shoes when go outside	57	91.9	167	92.8	0.05	.784
Wear socks inside the house	18	29.0	47	26.1	0.20	.654
Inspect shoes	33	53.2	94	52.5	0.01	.923
Foot massage	12	19.4	41	22.7	0.29	.587
Foot exercise	21	33.9	78	43.1	1.62	.202
Apply lotion	8	12.9	23	12.7	.01	.968
Walk careful	50	80.6	147	81.7	.03	.858
Shoe size	54	87.1	166	92.2	1.46	.226
Numbness feeling	38	61.3	111	61.7	.00	.958

Discussion

This secondary data analysis examined the incidence and causes of diabetic foot ulcers, foot self-care behaviors, and its relationship with history of diabetic foot ulcers among elderly. Participants were patients with diabetes at Saraburi hospital. The diabetic foot care behaviors evaluation in this study were similar to the guidelines recommended for cross culture for prevention risk of foot ulcers in older person with type 2 diabetes mellitus (Chellan et al., 2012; Chantharaesna, 2011).

Finding revealed that elderly participants in Thailand were less wearing socks (10.7%), proper protecting shoes (12.4%), and foot moisturizer (12.8%). Most elderly participants (41.5%) were diagnosed with diabetes for less than 10 years. The recalled history of common causes of foot ulcers were sharp object penetration (37.5%), accidental fall (10.9%), and infection from ingrown toe nails (9.4%). These causes of foot ulcers is important and reflect the process of aging changes such as impaired vision and limited bending, hip movement, and difficulty of regular foot self care (Pataky & Vischer, 2007). The deterioration of peripheral neuropathy results in loss of feeling and sensation and made elderly at risk to get burn from heat and cold. In addition, wearing tight shoes or socks and stockings with seams can cause friction and blisters on the feet (Moakes, 2012).

The incidence of diabetic foot ulcers found among Thai elderly with diabetes in this study was 25.5% similar to the report of 1:4 prevalence rate of diabetes-related lower extremity complications found among people lived with type 2 diabetes in Malta (Formosa, Gatt, & Chockalingam, 2012), 15-25% found in elderly (Pataky & Vischer, 2007), and 37.8% in Indian patients lived with diabetes less than 10 years (Chellan et al., 2012). However, there were reports of lower incidents of foot ulcers of 3.36% (Chantharaesna, 2011) and 12.6% (Sahaworakulsak, 2013) among elderly with diabetes in Thailand indicated better foot self care of Thai elderly even the rising cases.

Findings in Thai elderly samples revealed significant different between history of foot ulcers and wearing socks with shoes ($\chi^2 = 7.24$, $p < .05$) and wearing proper protective shoes ($\chi^2 = 4.44$, $p < .05$) at $p < .05$. Previous study revealed relationship between foot injury incidence and footwear as risk factors associated with foot pain (Grier, Knapik, Swedler, & Jones, 2011).

Conclusion

This study demonstrated that elderly people with Type II diabetic should pay more attention to their feet in order to prevent foot complications related to wearing socks and proper shoes. Healthcare providers and family members should promoted in diabetic foot self-care behaviors and help with foot inspection and care for feet of elderly with diabetes in Saraburi province, Thailand.

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Analysis of the Communication Mechanism of Positive Guidance Lead to Adverse Reactions' Reason

Dr. Liyongjian pro. [1]

Abstract

After the review of Chen Guangcheng event from the two points of agenda-setting and network polarity, this paper analyzes the reason of negative effect in Chen Guangcheng event and puts forward the problem of difference of agenda setting and attributes agenda setting. At the same time it analyzes the effect of two aspects, opinion leader and characteristics of network groups, which affect group polarity. On this basis, this paper proposes new ways and new methods which should open up public opinion guidance and rational understanding of the network group polarity. We should also recognize that emotional expression of group polarization would appear in the future more frequently.

Keywords: event of ChenGuangCheng, agenda-setting, Network polarization

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The report about Chen Guangchen started in 2003,when Chen took the subway in Beijing, holding blindness card without enjoying benefit of blind. For that, he took legal action and won finally. At that time, the medias created him as a folk law champion image of tall and brave. After that, Chen took part in a series of asserting activities and received media's and even abroad attention. In that period, Global Times ever made comments event of Chen should not be ideological, but it made little influence. The event reached a climax after Chen entered the US embassy.

Differential effects between topics Agenda and attribute agenda

The set of topics Agenda

In late April 2012,Chen entered the U.S Emassy, left after stranded 6 days.

On May2, 2012. Foreign Ministry spokesman Liu Weiming answered reporters that"U.S Embassy bring Chinese citizens into Embassy in an irregular manner. China strongly express dissatisfaction "and regarded it as a interfere in China's internal affairs, urged the United States to apologize.

On the same day, U.S Secretary of State Hillary Clinton issued a public statement on the incident. Ministry of Foreign Affairs responded that it will never accept U.S interference in China's internal affairs.

May.4,Foreign Ministry spokesman Liu Weiming answered reporters about Chen's wish of studying abroad"as a Chinese citizen, if he want to study abroad he can do as other people in a legal way by formalities to relevant departments."

On the same day, America issued a public statement that Chen has been admitted by an American college, he can go there with family.

These events are belongs to basic issues reported, in the aspect of media attention and public attention, we use the data of "Baidu index"--entering Chen Guangchen in the search box, available is as follows:

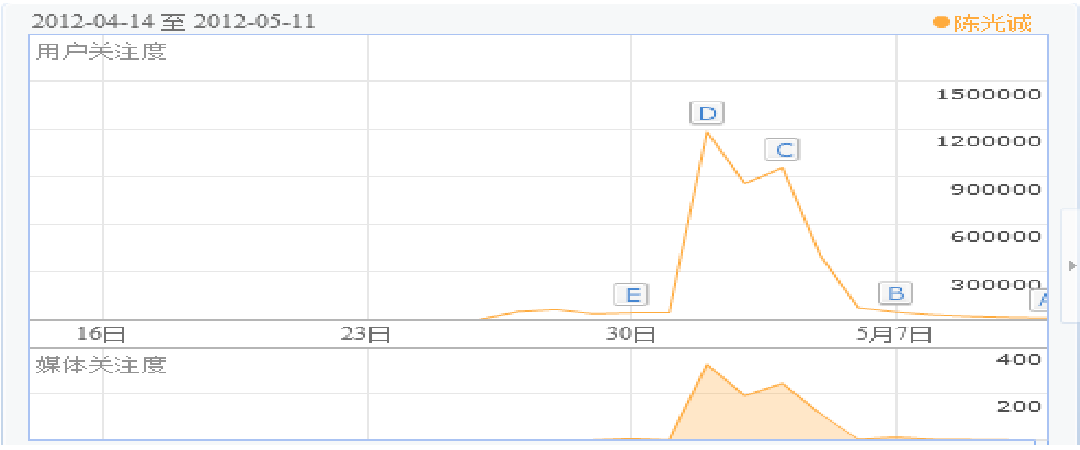

Figure 1. Contrast figure of user attention and media attention in Chen Guangchen event

Using correlation analysis (the day's media attention matches users' attention) on the basis of the data, it shows that there is a statistical significant correlation at the 0.01 level (both sides), the coefficient of correlation reach 0.981, which is close to 1.It can be read directly from the graph that the media has set an agenda for the public, which means the media is particularly successful in telling people what to think about.[12] But one point should be paid attention to, according to the existing research about agenda-setting, it usually has a problem of time lag, a time lag means that from the media agenda to public agenda is a course of events. For example, the event of Chen Guangcheng, there is a time process before it turns to a widely talked about topic as a media report. Some researches show that time lag can be long or short, the long one mostly in 1 month. But in this event, time lag is hardly exist, it's in one day if actually has. Network media brings the extremely short delay and traditional media cannot reach this level. But managers should notice the rapid agenda-setting cause it needs to be reacted in a extremely short time.

The set of attribute agenda

May 4,when the Chen Guangcheng Event should be concluded, he goes abroad, this should be a better solution. Then on the same day, “Beijing Daily”, “Beijing Times”, “Beijing News”, “Beijing Youth Daily” give comment, the following is a review of some of the typical four viewpoints:

“Beijing Daily”:”IN the Chen Guangcheng Event, the U.S. Embassy chosen to play a not-so-glorious role even can be said to be a crow like a cock or steal like a dog role, which set the expense of relevant international law, the overall situation of U.S.& China relations, ignore the most basic diplomatic courtesy, really astounding.

“Beijing News”:”As a foreign government diplomats stationed in other countries have the obligation to take the lead in obeying the local laws and respect the host country’s culture. International laws of diplomatic activities (Vienna Convention on Diplomatic) did not authorize ambassadors diplomatic personnel can freely challenge host country laws, yet authorize them to use more ‘Extraterritorial’ to interfere with other countries internal affairs.”

“Beijing Youth Daily”:”U.S. should put its energy and interest in maintaining the overall situation of U.S.& China relations, but not sizing some of China’s individual problems and incidents and magnify them to be a question of principle or ideology.”

“Beijing Times”:”U.S. take charge of the Chen Event, not the things that the United States really have that kind, yet full of performance desire, showing the excitement to find tools and pieces to get China into trouble. Every step likes a prior notice, there is always media to make a Chinese local grassroots specific contradictions enlarged to be the focus of media attention to the West, expanded to international attention, upgraded to ideological dimension.

These views caused lots of discussion, May 6 in the morning; the Beijing News apologized in sina micro blog, and later deleted the content, once again caused quite a stir. Add to foreign media’s instigation, the four newspaper’s commentary has caused some negative influence in society.

In the context of agenda-setting theory, comment is an attribute agenda setting, means telling people how to think.”

Topics agenda and attribute agenda in the role of news media

In the field of Journalism and Communication, counting from the source (i.e. 1922 Lippmann’s “opinion”), agenda-setting has over 90 years of history; if only from the perspective of empirical research, then the agenda-setting study began in 1968 when McCombs and Shaw hosted the Chapel hill study.

Agenda-setting research is similar to the research of domestic public opinion, the difference is agenda-setting research pays more attention on “what people want to tell the newspaper,” and guide public opinion research more attention to “the newspaper to tell people how to think.” Of course, later studies have gradually begun to study “how to think” problem, which is called the attribute agenda-setting.

Founder of agenda-setting , McCombs divided existing research into five stages first, the general agenda setting; second, intermediate factors; Third, attribute agenda setting; fourth, origin of agenda setting ; Fifth, consequences of agenda-setting. Obviously, the general agenda-setting research and attribute agenda-setting studies are generally two phases of the study.

Agenda-setting theory was formally developed by Dr. Max McCombs and Dr. Donald Shaw in a study on the 1968 presidential election[3], which focus on finding if there is any connection between the mess media’s agenda-setting and indecisive voters. In the 1968 “Chapel Hill study,” McCombs and Shaw demonstrated a strong correlation (r=0.98) that meant salience of the news agenda was highly correlated to that of the voters’, or the public’s agenda. Just as McCombs and Shaw, other researchers have focused on investigations of agenda setting to issues. Most of them still concentrated on the proving of the mass media’s significant influence on what publics considered, while only a few of researchers focused on denying the effects of agenda-setting. This situation showed that decades of studies on “media’s influence on the salience of topics on the public agenda” had won a success. As to subsequent researches of this issue, the one developed by Dr. Max McCombs called Charlotte Research is also famous.[4] The research on public opinion of Germany in 1986[5],was the first investigation which took place outside the US. And the research on public opinion of Louisville, US, had announced the studies on agenda-setting would focus on local cities from that on. Among all these cases, research focused on Shanghai’s public opinion, which developed by Zhang guoliang in 2001[7],had also proved the agenda-setting theory play a part in China. Though many people have question on agenda-setting theory, the increasing positive results have successfully responded the suspicion.

Attribute agenda setting. That is similar to the domestic public opinion to guide studies suffer more challenges, while it (the media tell people how to think), to some extent, also received some validation. Such as the 1996 U.S. presidential nomination and election, the researchers carried out a detailed analysis of various attributes in four candidates for the Republican Party, and isolated 28 kinds of attributes from The New York Times and Los Angeles Times, the Washington Post Code, in order to examine the press releases issued by the candidates has what impact properties on the news agenda. The results showed that the impact on the three candidates were +0.74, +0.75 and +0.78, [8]that means attribute agenda-setting exists under certain conditions, and the media in some cases can really tell the public how to think. However, in another study, in five attributes (conflict, economic situation, humane, helplessness and moral), the media and the public in terms of consistency to reassert only +0.20, [9]that is, in this study the media does not have ability to guide the public how to think. Chinese scholar Ma Zhihao and other peoples study found that:[10] "Read the news reports of materials have significantly influence on the properties agenda; large groups of group communication can significantly influence the audience for the evaluation of the subject property agenda."

Whether general agenda-setting research or attribute agenda-setting research were conducted in a more open environment. Domestic public opinion to guide research on this point is obviously more complicated. However, it is undeniable that the general properties of agenda-setting research and agenda-setting research on domestic public opinion to guide research have considerable reference, and that further study also found that attribute agenda setting and population size also has a relationship, which is laid the foundation for us from the point of view of group psychology behind this incident propagation mechanisms.

Factors of network polarization

In this incident, the role of guiding public opinion does not fully play out? To the contrary, there are some discordant voices on the network , what's the reason?

Group polarization (Group Polarization) was first used by James Stoner in 1961 when discovered the phenomenon of group discussions. Meaning when decision-making in a group, people tend to be more risky or conservative, to a certain extreme deviation, thus deviating from the best decision. French scholar Mr. Le pen and his subsequent scholars are have studied the phenomenon of group. Lage des foules, written by Mr. Moscovici, points out that, "in the whole society, a prestigious commander (or a charismatic leader) was formed the community he is smaller than the broader society, but does have a greater power and strong will, he can easily control the world, while the world is no known yet"[11].

American philosopher Case·Sanstein was among the first to associate group polarization and the Internet, he puts forward the concept of "group polarization", also pointed out that to begin with, the group members have some bias already, and bring about bias and group together; After discussing, because of the lack of opposing views and debate, people strengthen to strengthen the original bias, even form the extreme point of view. [12]American psychologist Sarah Keira, also found in the study: the group polarization phenomenon exists not only in reality, but also exists in the network. Author of "The Voice of the Network", Gray Shelke proves it through the research , "in politics and public opinion oriented discussion, opinion will be separated from two parts, and this phenomenon is abundant" in the network. [13]The reason for this is largely because we often see in the Internet extremism, but lack of a control mind.

Many researchers have pointed out: network will increase the possibility of group polarization. For example, Russell Spears and his colleagues also proves that through the research, the network group polarization phenomenon is more prominent, which is about more than twice as likely to face to face in real life. [14]Cass Sanstein, also mention to the network for many people, it is a hotbed of extremism, because like-minded people can easily on the Internet and frequent communication, to hear different views, continuous exposure to extreme positions, listening to the views of these people, can let a person believes that the position gradually. And similarly, Internet sites tend to collect information, link position similar to other websites, which will result in information "narrow"; People through the Internet to anonymous way to become group members, will make the group's point of view are more likely to be extreme.

1, the role of opinion leaders in network group polarization

The emergence of network opinion leaders group changed the traditional way on dominating news propaganda and the pattern of public opinion by government and official media has formed a new pattern of the social influence. Network opinion leaders influence and guide the network public opinion, even the subject of public opinion in real space and orientation. On one hand, he can set issue for others; on the other hand, can set the framework of discussion for others. Namely, to discuss the topic and how to discuss this topic. Especially in some hot issues of society, the network opinion leaders can quickly speak on the Internet, taking advantage of public opinion. In the" Chen guangcheng incident", the opinion leaders in his article, "weiblog", "blog", and BBS speech is to a great extent, affects the various network group. Opinion leaders in the event of the impact is not big, not in the network BBS, especially the spreading process of "weibo", opinion leaders played an important role. Unfortunately, however, the incident, the opinion leaders of four to and as much objection to the government. This group of people now is what we call "public intellectual", such as Wu Yuesanren, Xiong Peiyun.

Even some of them have a deep relationship with Chen guangcheng, such as Ai xiaoming. However, that is not to say, citizens' attitude is depends on theirs totally. But what arouse sympathy are the way they speak and the way they do. That is not all, of course. In some populations, such as the elderly, Patriotism is still prevailed. The negative effects of the crowd are come from more young people. The majority was under the age of 39. These people are the crowd the opinion leaders will have the biggest influence on.

2. A new audience, who are receivers, as well as transmitters.

The development of new media, represented by the Internet, makes the concept of "audience" today has gone far beyond the traditional sense of the "audience". Their characteristics and the psychological characteristic is the important reasons related to public opinions. At present, in China, many citizens will take the initiative to focus on foreign media news reports, especially the news involving China. Through the analysis of the related data, reports about China from some foreign medias, such as the New York Times, the Washington post, CNN and other medias are negative. Even some reports demonize China. To some extent, these contents will affect Chinese citizens' judgment of facts and opinions. The longer citizens were affected by this view, the more rebellious the judgment would be.

In addition, at home, the "over the wall" has become normal because many websites are "blocked". Especially the audience we've mentioned whose age is between 20-39, bachelor degree or college degree, becomes the main force of "over the wall". Through the interviews, we find the purposes of over the wall is to go to Twitter and other social networking sites, or to entertain (such as watching YouTube), or to find the related information, or to watch foreign media news. At the same time, some of respondents said some foreign media comments were affecting them.

In China, some scholars think about networking groups from different angles. For example, HeWei pointed out in his book < The Spread of Network >: net of the formations is networked; this configuration can reduce the tendency of "group polarization". Yang Boxu also pointed out in the book <The Research of Network Polarization>: network polarization under the background of general issues does not exist. At the same time, he pointed out that network polarization that is associated with political ideology, and shows significant difference in the category of specific issues. Also some scholars pointed out that the quality of discussion online could also influence the outcome of group polarization[15]. Some scholars think: There is no direct discussion. Internet users often make a decision according to the opinion of the opinion leader or their own experience.[16]

Compare to the audience of traditional news media, the network audience has its obvious population characteristics. As a tool, internet will gather a large number of users to express their opinions after some social phenomena and problems appeared on the internet. The opinion leaders on the internet would send their opinions to the public actively, and the thoughts and says of users would be conducted by the opinion leaders easily. In a case of online community and small groups on network or the homogeneity between some specific online community and small groups, their says will tend to be more uniform under the influence of the opinion leaders. At this point, if the opinion within the group is highly uniform, it would be likely to towards to a polarization of remarks, even conform some groups incidents of polarization on the internet, which will seriously affect the common social life and public order, then break the stabilize of the society.

Furthermore, the extent of polarization not only related to the category of topic, but also on the relevant of net groups are relatively aggressive are more prone to polarization. Not all the topic will lead to the polarization, only when one aspect of event has involved in the of the social emotions contradictions, it could cause a large number of concern and lively discussion from internet users. If the community comments at this time are highly uniform, it may cause the network group polarization phenomenon. Meanwhile, on the individual, Individual difference is a significant factor of bringing about group polarization. Network groups composed by different individual levels of education, critical ability, religion faith, social class and personality factors will also make a difference.

Discussion

Recently, similar incidents happen repeatedly, "Global Times" in May 29th published an editorial about China's corruption problem, entitled "anti-corruption is a crucial battle for Chinese society". But in the transfer, portal website "tencent.com" changed the title by their own interpretation as "China must permit some corruption, people should understand", resulting in extensive discussion. If we seek the causes of the phenomenon from the propagation theory, then we can analyze the effect of the topic and characteristics of the network. When guiding people how to think on the issue, we should open up new ways rather than follow the old methods. At the same time, we should have a correct understanding on the network group polarization phenomena. We should not be overly concerned about it because it is an inevitable manifestation of group psychology. China is currently in the problematic social transition and the public mood can easily be mobilized, so the group polarization phenomenon will become more frequent. Opinion leaders can easily guide citizens determined by their own characteristics. Due to restrictions on experience and level of knowledge, it is difficult for the internet users to clarify the complex social and psychological motivation behind things in a short time, so they often resort to opinion leaders to understand what is happening. The "cult mentality" of the opinion leaders made citizens easier to believe that the conclusions of them. Meanwhile, as a result of irrational emotions, the citizens are often in a state of non-rational mode when expressing critical opinion. It is easy for them to be infected by other users' extreme emotions to have greater social emotions. According to the statistical analysis of the related posts, we found that in many network group polarization incident, abuse, ridicule and other emotional remarks replies took the majority of the total in the online forums or news websites. Therefore, we must deal with this kind of internet group polarization phenomenon correctly and calmly. We need to recognize that this is the inevitable result of the network society development as well as reflect on traditional practices. We must innovate practices to guide public opinion to adapt to social development, so that we can ensure the healthy and harmonious development of Chinese society.

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Shanghai Residents' Cognition, Attitudes and Expressions towards Significant Political Events
——A Case Study of the 2013 "Two Sessions" of China

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ABSTRACT

China's "two sessions", namely, the National People's Congress (NPC) and the Chinese People's Political Consultative Conference (CPPCC), has significant meaning to the political life of the nation. It collects opinions and advises from different groups of people annually. "Two sessions" 2013 was especially eye-catching, because new state leaders were elected at the meetings. Using CATI (Computer Assisted Telephone Interviewing) system, Media and Public Opinion Center of Fudan University (FMORC) conducted surveys of China's "two sessions" every year from 2007 to 2013. In 2013, the influence of new media on public opinion has become increasingly significant. Microblog and WeChat have become two types of important media for Shanghai residents to express their opinions and take part in China's "two sessions". Based on the empirical findings, this paper examines Shanghai Residents' cognition, attitudes and expressions towards "two sessions" 2013 and analyzes how new media affect the public opinions on significant political events.

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Intruduction

The "two sessions" of China refers to the National People's Congress (NPC) and the Chinese People's Political Consultative Conference (CPPCC). It has significant meaning to the political life of the nation.

In contemporary China, the main organization form for people to exercise their rights by voting is the People's Congresses at all levels. And the Chinese People's Political Consultative Conference, known as CPPCC, is the place of great importance for different groups of people to make full consultations before making great decisions (Tang, 2013). It collects opinions and advises from different groups of people annually.

Under the system of "two sessions", NPC and CPPCC stand for people's will of different regions and sectors. The combination of the two forms the broadest and the most important institutional carrier for Chinese citizens' political participation. The system of "two sessions" connects the government and the public from two dimensions, i.e. region and sector, greatly broadens the channels for public opinions to be heard by the government, and expands citizens' political participation in an orderly way. On the platform of "two sessions", the adoption of public opinions by the political system encompasses a series of political process links under the leadership of the ruling party, like expression of public opinions, comprehension of public opinions, public opinions influencing the decision-making, supervision by public opinions and so forth (Sheng, 2011).

The 2013 "two sessions" was especially eye-catching, not only because new state leaders were elected at the meetings, but also because new media, microblog, WeChat and the like, played a quite important role in the information communication of the "two sessions". Making use of their advantages like fast speed and high interactivity, through cooperating with traditional media on special reports, releasing rolling news, innovatively promoting the expression of public opinions and government seeking advice from netizens online, and conducting surveys about popular issues (Liu &Zhang, 2013), new media have greatly changed the traditional information communication pattern of significant political events.

The "two sessions" is not only the most significant political event every year in China, but also the focus of all types of media. Through studying Chinese people's reaction to China's 2013 "two sessions" from five perspectives, namely "awareness and attention", "information channels", "topic of concern", "comprehensive evaluation", "expression and participation", this paper examines and discusses people's cognition, attitudes and expressions towards significant political events and the influence of new media, including microblog, WeChat and the like, on the information communication of those events.

Method

Using CATI (Computer Assisted Telephone Interviewing) system, with the method of random sampling, this study has successfully interviewed 291 Shanghai residents above 18 years old throughout the 17 districts and counties of the city. Under a 95% confidence level, the sampling error is ±5.7%.

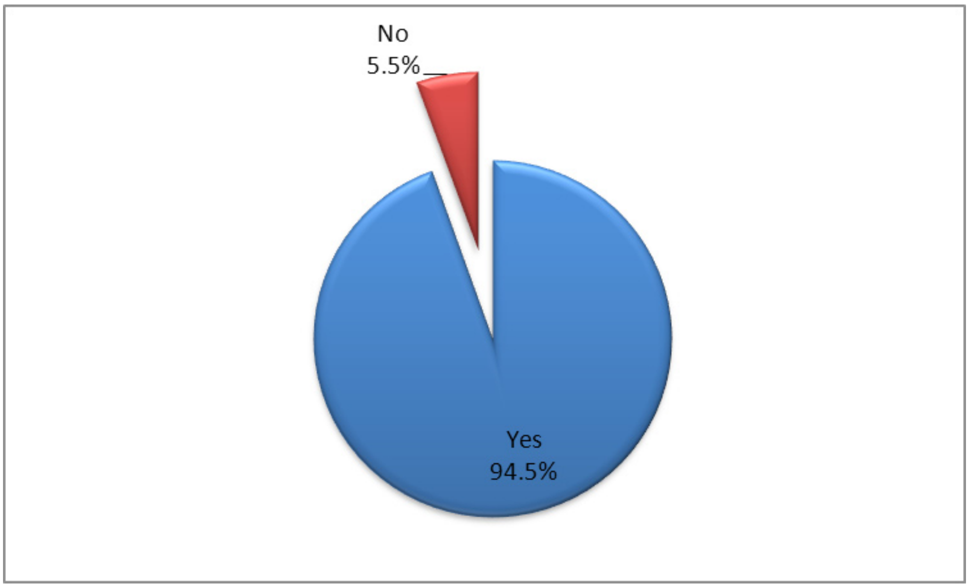
The sample is 50.5% male n=147 and 49.5% female (n=144); 4.6% (n=13) with no more than elementary education, 19.4% (n=55) with junior high education, 25.1% (n=71) with senior high or technical secondary school degrees, 17.0% (n=48) with junior college degrees, 29.0% (n=82) with bachelor degrees, 4.9% (n=14) with master degrees and above. There are 33 interviewees between 18 and 25 years old (11.6%), 57 between 26 and 35 years (20.0%), 39 between 36 and 45 years (13.7%), 45 between 46 and 55 years (15.8%), 61 between 56 and 65 years (21.4%) and 50 over 66 years (17.5%).

Results

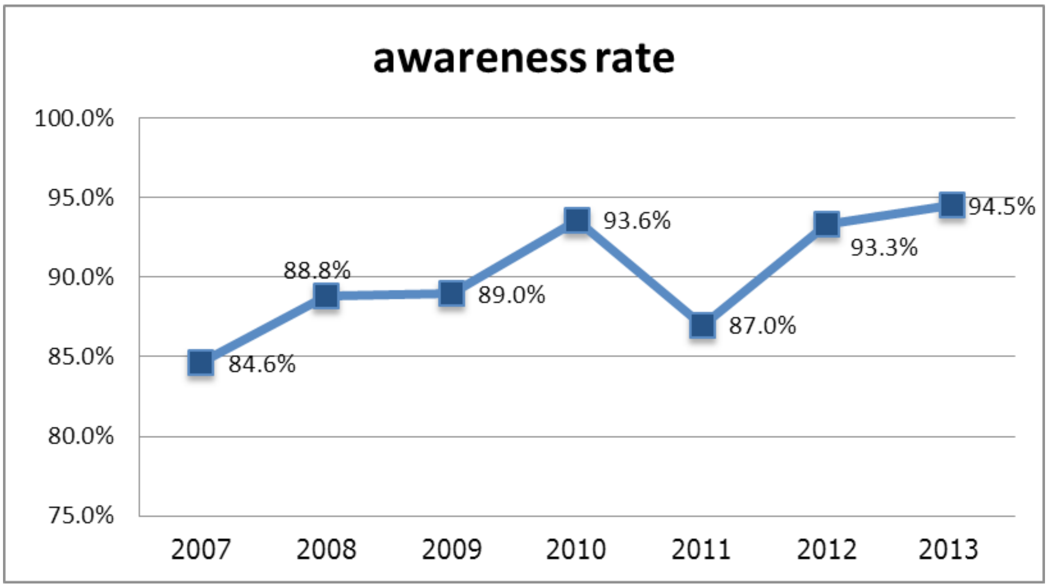
Awareness and attention

The result shows that Shanghai residents' awareness rate of 2013 "two sessions" is quite high, with only 5.5% saying they didn't know about it. Besides, Shanghai residents' awareness rate of 2013 "two sessions" reached the highest since 2007.

Are you aware of China’s 2013“two sessions”?

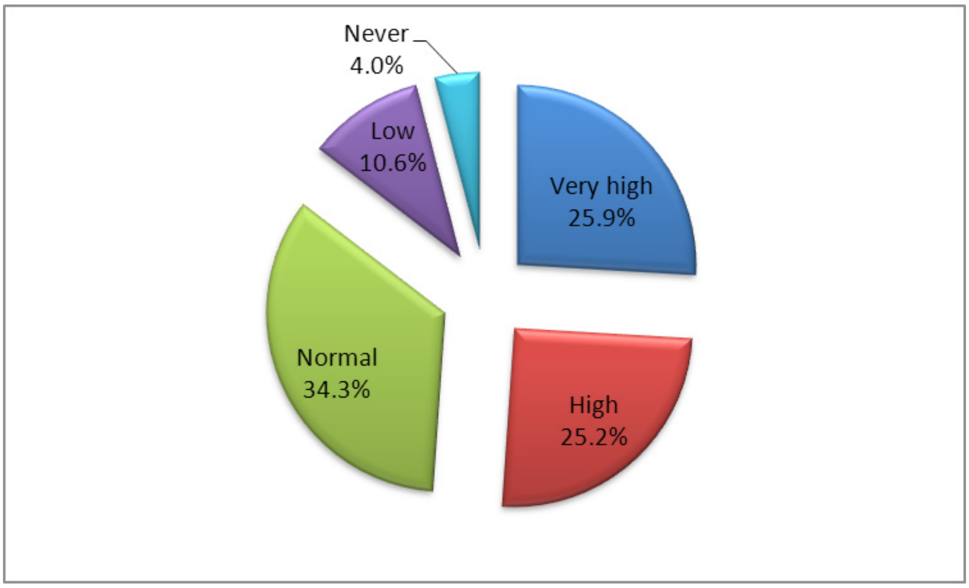


The variation tendency of Shanghai residents’ awareness rate of China’s “two sessions” since 2007



Among the interviewees with knowledge of 2013 “two sessions”, 25.9% said they were highly concerned about it; 25.2% showed comparatively high attention rate; 34.5% normal; 10.6% low; only 4.0% said they paid no attention at all. The proportion of “very high” reached the largest since 2007.

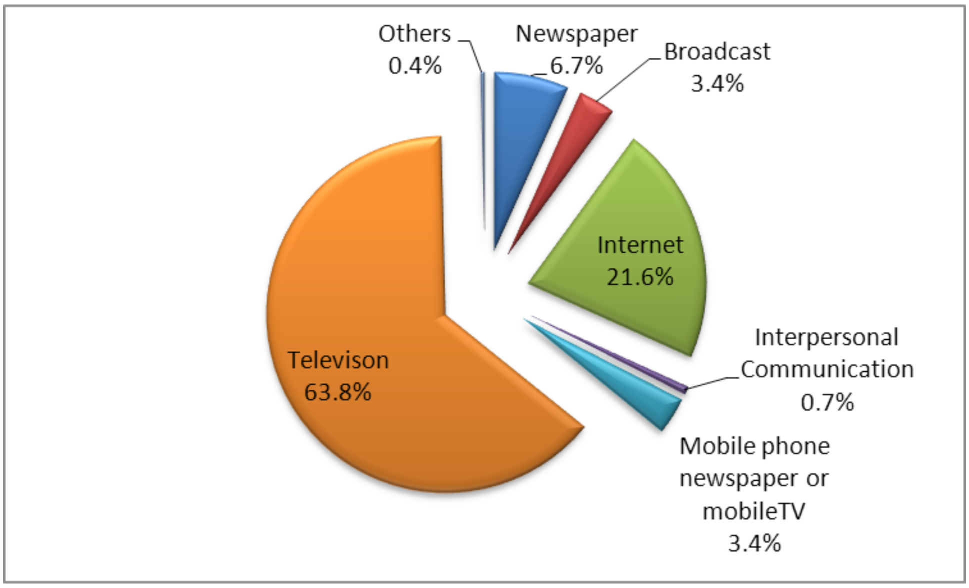
Shanghai residents' attention rate of China's 2013 "two sessions"



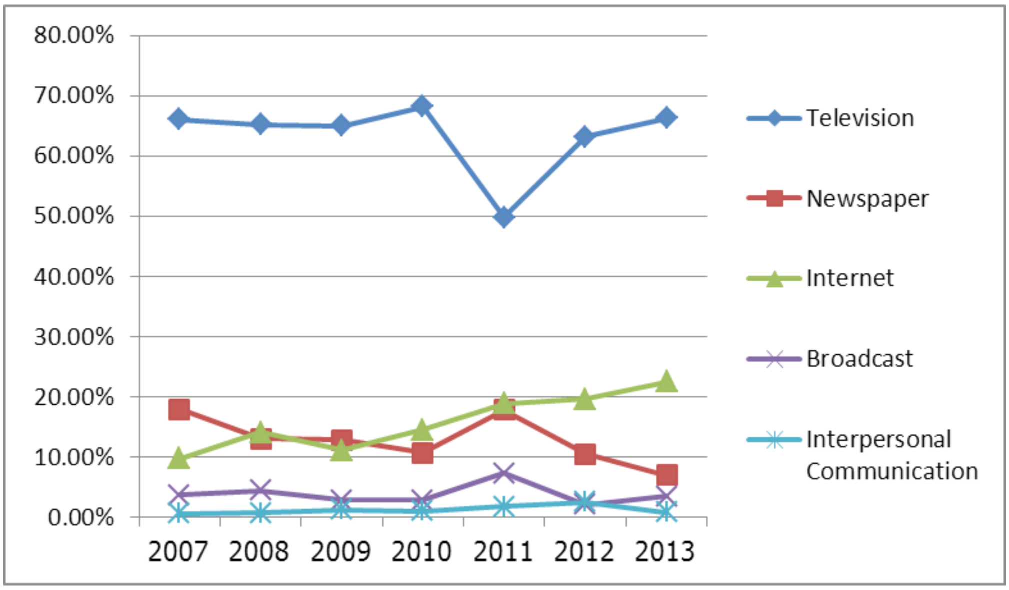
Information channels

Among all the information channels, television, comprising 63.8%, is still the major channel for interviewees to get the information of the "two sessions". It is followed by internet (21.7%), newspapers (6.7%), broadcast (3.4%), mobile phone newspapers and mobile TV (3.4%) and interpersonal communication (0.7%). It should be noted that the proportion of interviewees gaining information of the "two sessions" through internet reached the largest since 2007, surpassing 20% for the first time.

The most important channels for Shanghai residents to get the information of China's 2013 "two sessions"

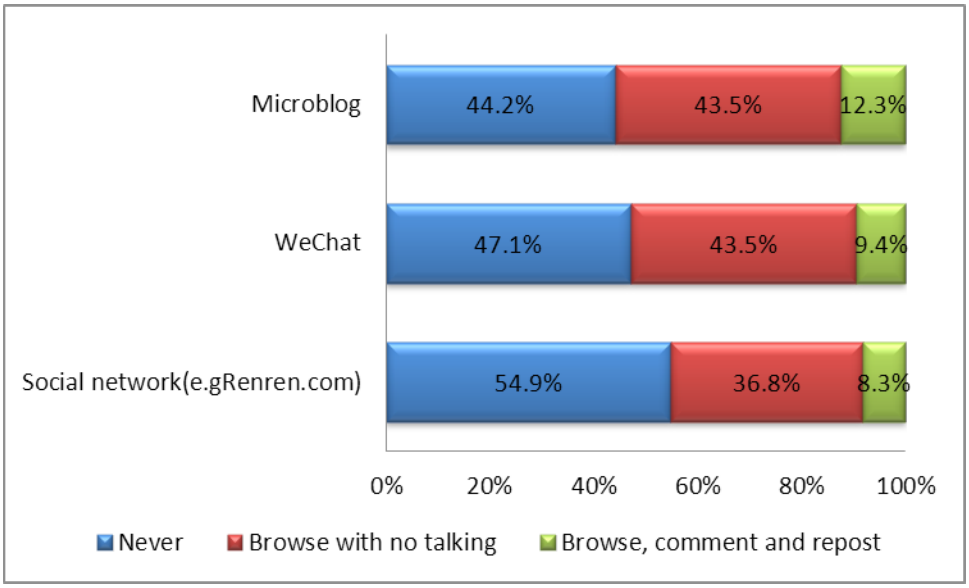


The most important channels for Shanghai residents to get the information of the "two sessions" in recent 7 years



Online social media like microblog and WeChat have seen rapid development in recent years and many people get to know and participate in "two sessions" through those new types of media. According to the survey, among all the netizens, 55.8% of them browsed information or took part in discussions regarding "two sessions" on microblog, 52.9% do so through WeChat, and 45.1% through social networks.

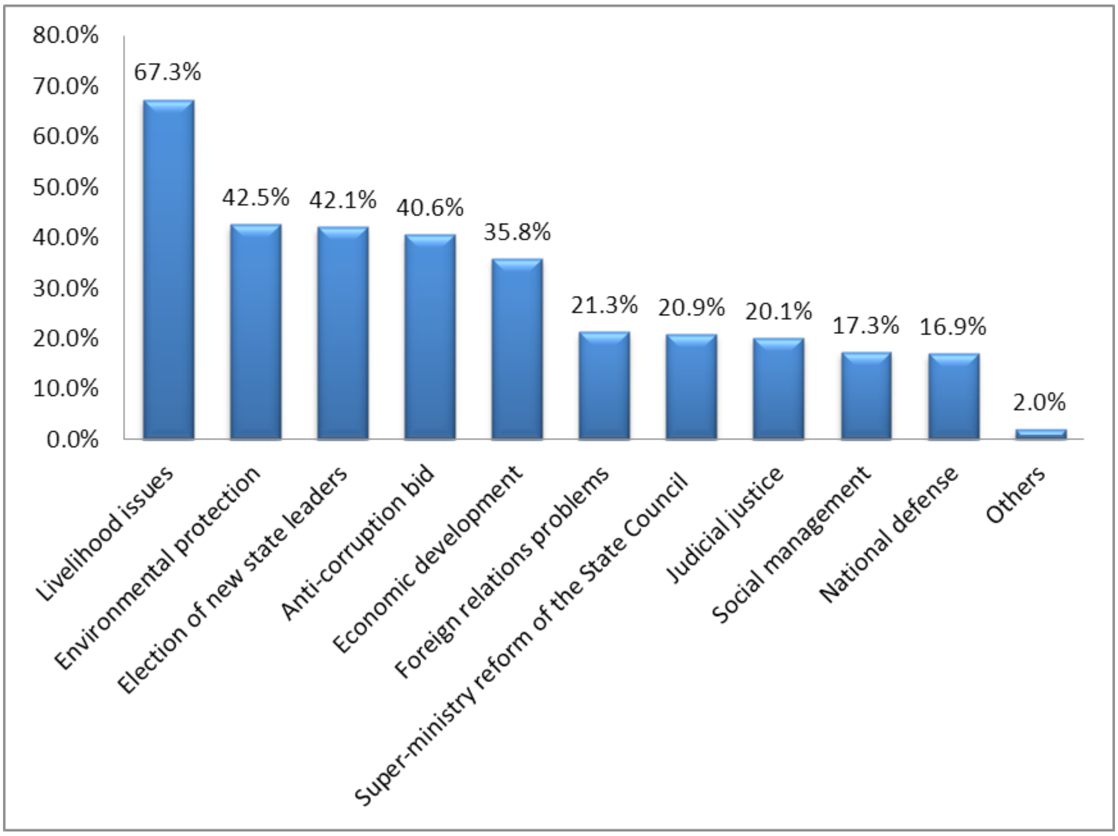
The most important online social media for Shanghai residents to express opinions and take part in China's 2013 "two sessions"



Topic of concern

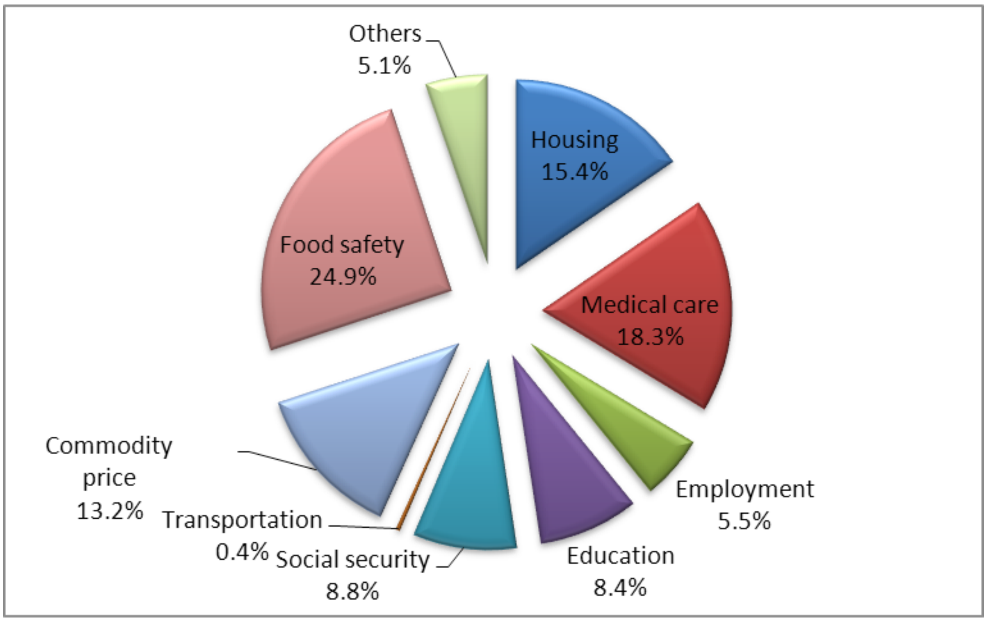
Among the topics of the "two sessions", the one drew the greatest attention is the "livelihood issues", with 58.6% of interviewees showing their concerns. Due to the worsening air quality and exceeding PM 2.5 in China's big cities in recent years, interviewees' concern over environmental protection (37.0%) has obviously risen, ranking the second among the topics. As an important item on the agenda of China's 2013 "two sessions", election of the new state leaders (36.6%) is ranks the third on the list of topics of concern. It is followed by anti-corruption bid (35.3%), economic development (31.2%), foreign relations problems (18.5%) and the State Council's super-ministry reform (18.2%).

Concerned topics of China's 2013 "two sessions"



Among the livelihood issues, the problem drawing the most attention is food safety (24.9%). It is followed by the problems of medical care (18.3%), housing (15.4%), commodity price (13.2%), social security (8.8%), education (8.4%), employment (5.5%) and transportation (0.4%).

The most concerned topic of livelihood issues



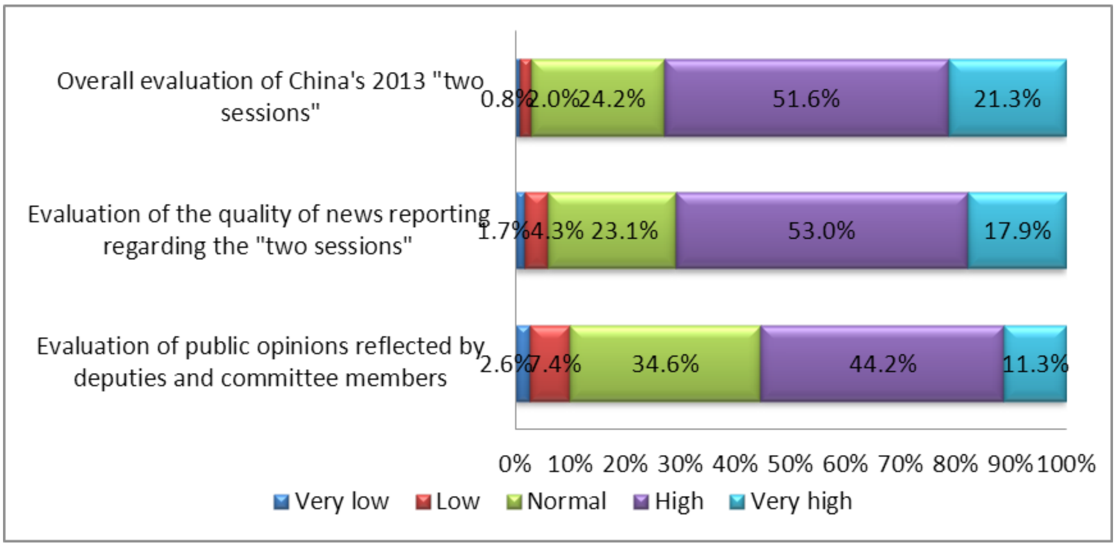
Comprehensive evaluation

According to the survey, the comprehensive evaluation of China's 2013 "two sessions" is comparatively high. When asked about the degree of satisfaction of the "two sessions", 21.3% of the interviewees chose the option of "very high"; 51.7% of them chose "high"; 24.2% chose "normal"; 2.0% chose "low" and 0.8% said they were extremely unsatisfied.

As to the evaluation of the quality of news reporting regarding the "two sessions", 17.9% of the interviewees chose the option of "very high"; 53.0% of them chose "high"; 23.1% chose "normal"; 4.3% chose "low" and 1.7% said they were not satisfied at all.

When evaluating how public opinions were reflected during the "two sessions" by deputies and committee members, 11.3% of the interviewees chose "very high"; 44.2% of them chose "high"; 34.6% chose "normal"; 7.4% chose "low" and 2.6% chose "very low".

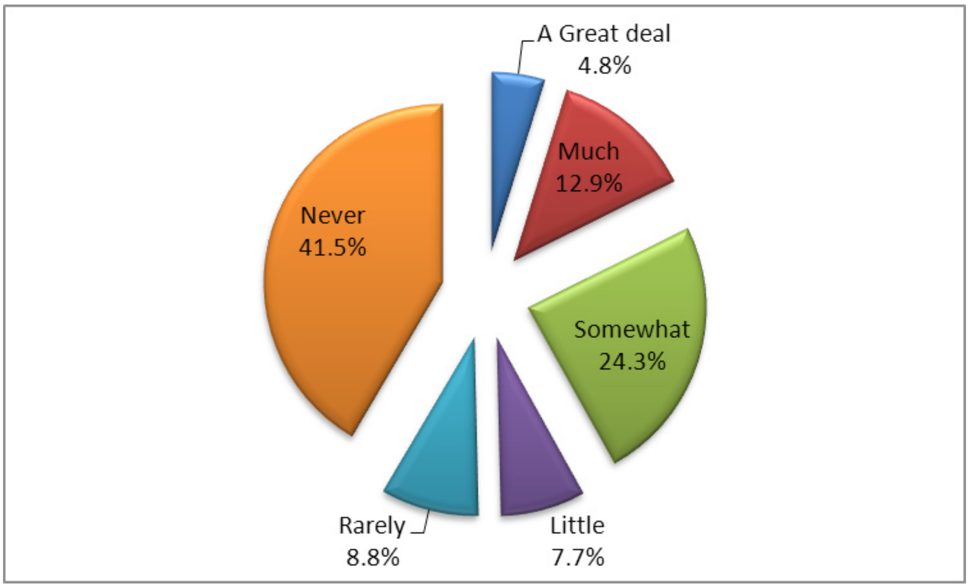
Shanghai residents' comprehensive evaluation of China's 2013 "two sessions"



Expression and participation

Among the interviewees with knowledge of 2013 "two sessions", 41.5% of them said they had never conducted discussions about the "two sessions" with others; 8.8% of them said they rarely discussed that topic; 7.7% had little discussions on "two sessions"; 12.9% reported much discussions with others about "two sessions" and the interviewees who discussed "two sessions" a great deal only accounted for 4.8%.

Shanghai residents' discussions of China's 2013 "two sessions"



Discussion

1. The awareness rate of China's 2013"two sessions" is relatively high, while special events would lead to obvious changes to the attention rate. Compared with four years ago, the 2013 "two sessions" has the highest awareness rate, because new state leaders were elected at the meetings. The ruling idea of the new leaders will have significant influence on China's development for some time to come. People look at the new government with curiosity and hope, hoping the new leaders will bring reform and further development. The "two sessions" provides an important window for the public to know the new leaders and the future direction of development, thus attracting high attention of all social sectors.

2. Television is the most important channel for people to get the information of the "two sessions" in recent 7 years. Important agenda of the "two sessions" are broadcast live on television, supplemented by interviewing, discussing and commenting, providing in-depth news reports as soon as possible. Besides, television is easy to access: on the one hand, television penetration is high and the majority of Chinese families have televisions; on the other hand, it is not necessary to acquire certain skills in order watch television—for people who are not familiar with the internet, television is their major channel to gain information of significant political events quickly.

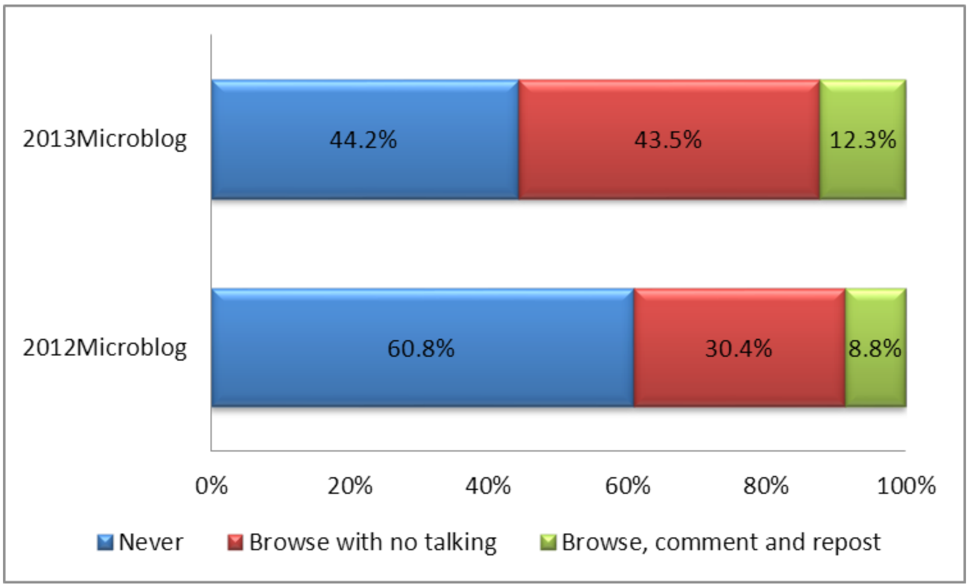
Since 2010, internet has surpassed newspapers and became the second largest information channel for the public to get information of the "two sessions". In 2012, the number of people gaining information of the "two sessions" through internet (19.6%) was almost the twice of the number through newspapers (10.5%). While in 2013, the number of people gaining information of the "two sessions" through internet (22.5%) became more than three times of the number through newspapers (7.0%). Compared with news in newspapers, online news has the advantages of instantaneity, continuity throughout the day and integration. Its instantaneity enables people to get the latest news of significant political events in no time; its continuity enables people to pick up updates whenever and wherever they want; and since multi-media means including words, pictures, videos and audios are integrated on the internet, it provides people with a much more comprehensive knowledge of significant political events. It is predictable that the internet will play an increasingly important role in the news reporting of significant political events in the future.

3. Microblog and WeChat have been the most important online social media for Shanghai residents to express their opinions and take part in China's "two sessions".

In the aspect of news reporting, microblog and WeChat have enhanced their cooperation with traditional media. Sina Weibo (one of the most commonly used microblogs in China) cooperated with traditional media including CCTV, Xinhua News Agency and People's Daily and promoted their official microblog accounts on its platform and released microblog posts aiming at their news reports (Liu and Zhang, 2013). As to WeChat platform, CCTV released their "Observing the 'two sessions' through WeChat" section on it, where they set a topic every day to interact with the audience. Then they picked several typical comments of the audience and broadcast them on the program "24 Hours" at 11 p.m. every day on CCTV News Channel (Wang and Yi, 2013). In this way, it not only integrated the advantages of traditional media, but also provided a platform for interactions between traditional media and the public.

Online social media represents a particularly promising forum for revealing the promise that digital technologies could lead to greater political and civic engagement (Pasek, More and Romer, 2012). According to the survey, in 2012, 8.8% of the netizens not only browsed the information of the "two sessions" on microblog but also reposted and commented about the meetings on it. While in 2013, that number increased to 12.3%. As the use of microblog expands and deepens gradually, people are getting used to discuss and participate in significant political events through online social media. On the one hand, online social media like microblog have disrupted the traditional media-dominated information communication pattern when reporting the "two sessions". Microblog users can express their opinions about the "two sessions" through their microblog accounts, enabling each of them to become a "we media". On the other hand, by the way of "micro-interview", "# my proposals on 'two sessions'#" discussions and the like, the communication channel between the public and government officials and "two sessions" deputies is established, so is the public communication platform to "seek advice from netizens on microblog". With the online social media including microblog, the willingness and capacity of the public to discuss and participate in significant political events have greatly developed.

Shanghai residents' information acquisition, commenting and reposting on microblog about the 2012 and 2013 "two sessions"



4. During the "two sessions", people pay more attention to the issues which are closely related to their daily life. Among the concerned topics, the one drawing the most attention is the livelihood issues, followed by environmental problems. And the election of new state leaders ranks the third. Till now, since 2007, the livelihood issues have always been of top concern during "two sessions" every year. In spite of the importance of election of new state leaders, anti-corruption aid and economic development, the essential problem to the public has always been how the quality of their daily life can be improved. During 2013's "two sessions", the interviewees' attention rate of the environmental problems even surpassed the rate of the election of new state leaders. That is because on the one hand, the environmental problems including air pollution is closely related to people's daily life and people cannot survive without those indispensable resources like clean air and water; on the other hand, it

reveals an urgent hope of the public for effective policy measures to improve the environment. And among the livelihood issues, food safety (24.9%), medical care (18.3%) and housing (15.4%) are the top three concerned topics. All those three topics are related to people's basic survival needs. Only when the problems of food safety, medical care and housing are properly solved, can people go further to pursue better education and career.

5. Shanghai residents' overall evaluation of the "two sessions" of China is relatively high. However, the evaluation of how the NPC deputies and CPPCC National Committee members' proposals reflect the public opinions is slightly lower than the overall evaluation of the "two sessions". The "two sessions" represents China's representative democracy, and deputies of the "two sessions" should pay high attention to people's concerned topics and the proposals submitted by them should contain solutions to problems of public concerns. Ruan (2009) believes that direct election, deputy professionalism, reinforcement of the information communication between voters and deputies and enactment of laws supervising deputies' execution of duty are effective measures to improve power supervision of China's representative democracy. More explorations and practices are needed to improve China's "two sessions" system and to promote the process of China's political democratization.

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Modeling of Public Risk Perception and Risk Communication Research: In a Social-Cognitive Direction

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ABSTRACT

This study begins with the review of commonly discussed public risk perception components that may construct the public opinion toward risks. Factors such as demographic background, trust, and media information revealed by literatures that have substantial impact on risk perception are also discussed. Meanwhile, two well-known research models in the realm of risk analysis have been evaluated: 1) the psychometric paradigm, and 2) the social amplification of risk framework (SARF). Based on literature review, this study suggests that, besides the psychological and social approach, risk perception and risk communication research models should be shifting to a more comprehensive one by considering the interrelations among individuals' perceptions, responses, and environmental factors. This study postulates a research model from the perspective of social cognitive theory (SCT) as a potential framework for future studies: 1) in the societal environment, individuals' risk perception and risk-related information seeking behaviors that determined by risk perception via the acting of personal beliefs, will be influenced by individuals' trust in risk regulators and interpersonal trust; 2) in the media environment, individuals' risk perception and the information seeking behaviors will be influenced by individuals' perceived information characteristics under media exposure. Knowledge about risk accumulated in information seeking will affect perceived risk dynamically in a longitudinal process.

Keywords: Risk perception, risk communication, social-cognitive approach

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Risk Perception Research

The Concept of Risk Perception

In the realm of risk analysis, the concept of risk perception has been a central topic over time. Dissimilar from the experts who own the expertise and skills to estimate and understand risks, the general public, namely the laypeople, do not have enough knowledge and perfect rationality to get the picture of real risks. When exposed to hazards, stimulated by external influencers such as natural-social environment, or internal drivers such as psychological status, laypeople can only rely on their intuitions to interpret risk and make subjective judgments on how risky the event will be (Slovic, 1987). Such mental process of laypeople is typically called *risk perception* in academia. The concept indicates a knowledge gap between experts and laypeople, which has been seen as the fundamental motivation to conduct risk communication for preventing irrational chaos and guiding efficient coping strategies (Frewer, 2004).

Psychometric Paradigm

In the nearly 50-year's history of risk analysis, risk perception has been studied from various perspectives. No matter from the psychological perspectives such as affect heuristics (Finucane, Alhakami, Slovic, & Johnson, 2000), or from the sociological disciplines such as culture theories (Gierlach, Belsher, & Beutler, 2010), almost none research neglects the significance of psychometric paradigm which is defined as an approach that enables risk perception to be quantifiable and predictable. It is claimed that laypeople form their judgment about risks out of their feelings towards risk information (Slovic, Finucane, Peters, & MacGregor, 2004). Carrying sundry signals that transmitting emotions, affects, and stigma, risk related information could arouse diverse feelings such as scare, familiarity and worry, to affect people's risk perceptions. By adopting the psychometric paradigm, numerous feelings can be grouped into a limited number of components to serve as the characteristics of risk perception. The psychometric approach was first introduced by Fischhoff et al. (1978). In the pioneer study, they compiled nine dimensions from the literatures that had been hypothesized as key factors to determine risk perception, and obtained a two-factor structure, named *dread* and *novelty*, to explain the variance of laypeople's risk judgment.

Replicated by a considerable amount of following studies, the psychometric paradigm becomes an icon and formulaic model in risk perception research. Examples are not only found in studies using European and North American samples (Barnett & Breakwell, 2001; Binder, Scheufele, Brossard, & Gunther, 2011; Bubeck, Botzen, & Aerts, 2012; Coles & Hodgkinson, 2008; Kellens, Zaalberg, Neutens, Vanneuville, & De Maeyer, 2011; Lazo, Kinnell, & Fisher, 2000; Prati, Pietrantoni, & Zani, 2011; Slovic, 1987; Terpstra, 2011; Turner, Rimal, Morrison, & Kim, 2006; Verroen, Gutteling, & Vries, 2013), but also in those using Asian samples (Ho, Shaw, Lin, & Chiu, 2008; Hung & Wang, 2011; Kung & Chen, 2012; Lai & Tao, 2003; Li & Ito, 2012; Shi et al., 2003; Zhang, 1993). According to the results from a series of empirical studies, several feelings, which frequently occur when people face a hazard, have been commonly invited in statistical analysis for predicting the characteristics of perceived risk among a certain population. To state explicitly, *perceived likelihood*, asking how likely people think the hazard will happen and impact their life, is often used as one of the components to explain perceptions of natural hazards such as earthquake (Kung & Chen, 2012), flood (Terpstra, 2011), and landslide (Ho et al., 2008). *Perceived newness* asking how unfamiliar people think the hazard is, and *perceived catastrophe* asking how harmful people think the hazard will be to the next generation and future development of society, are often used when human-made and technological-related risks are under discussion, such as pollution (Zhang, 1993), disease (Shi et al., 2003), and genetically-modified food (Lai & Tao, 2003). *Perceived dread* asking to what extent people feel scared about a hazard, *perceived controllability* asking to what extent people think the influence of a hazard is controllable, and *perceived severity* asking to what extent people think the consequences of a hazard are severe, are generally applied, such as in studies examining public perceptions of nuclear radiation as well as many daily life hazardous activities (Fischhoff et al., 1978; Lai & Tao, 2003; Slovic, 1987).

External Predictors of Perceived Risk

Identified as personal feelings, risk perception has been frequently connected with individuals' demographic backgrounds and socioeconomic status, to name a few, gender, age, income, educational attainment, occupation, and risk experience. Among these factors, direct risk experience has been proved to be the strongest predictor of perceived risk (Barnett & Breakwell, 2001; Kung & Chen, 2012). In most cases, people's risk perception will be positively influenced by their direct risk experience, which means the more people are directly exposed to or have been impacted by a hazard, the higher risk level they will perceive about the hazard. This phenomenon, being considered as a reinforcement of precautionary behavior, may be because risk experience can offer illustrations of a threat and generate imaginations about the potential consequences of a hazard (Wachinger, Renn, Begg, & Kuhlicke, 2013); therefore, it usually leads to a higher level of risk perception. The predicted effects of other factors are not powerful, even not significant in most cases, and their correlations with risk perception normally vary according to different types of hazards and individuals' living context.

Trust, especially in authorities and risk regulators, has also been recognized as a significant predictor of perceived risk. Many previous studies have invited trust into the examination of causal relationships. Stemmed out of people's judgments about the propensity to be open and honest of an authority (White & Johnson, 2010), trust serves to reduce the complexity and uncertainty of a situation, and allows people to adapt to various hazards they face in the society and react in a rational way (Siegrist & Cvetkovich, 2000; Viklund, 2003; Welch et al., 2005). Results from early empirical studies show that trust is an important source of the variance of perceived risks and often leads to a lower level of risk perception regarding varied hazards.

Media, as an important information source, is another hypothesized predictor that receives particular attention in risk perception research because of its central role in the social construction of risk (Miles & Morse, 2007). By transmitting risk information with various signals like affective elements, the media has a strong impact on laypeople's cognitive responses (Dahlstrom, Dudo, & Brossard, 2012). It is worthy of note that, compared with the traditional media such as newspaper, television and broadcasting, the emergence and prevailing of new media, especially the Internet, has largely influenced risk information production and promoted a changing way of risk communication. The Internet provides low-cost and easy access to the public, which helps to accelerate the intensity and speed of public attention to risk events (Chung, 2011). Particular qualities of information from media such as amount, accuracy, and readability have also been assumed to affect risk perception (Kasperson et al., 1988; Kitzinger, 1999; Wahlberg & Sjöberg, 2000), although without sufficient empirical evidence at the present, their potential predictive power may be supported by future research.

Development in Risk Communication

Early Stages: Scientific Approach to Risk

Risk communication has been through a relatively short but rapid development since the phrase first appeared during 1980s (Leiss, 1996). It has been acknowledged that, regarding risks, the cognitive disparities between experts and laypeople are the primary driver of proceeding risk communication (Frewer, 2004). Because laypeople have limited specialized knowledge about risks, they are assumed very likely to misunderstand situations they involved in and behave irrationally when exposed to risk. For this reason, the experts and regulators have tried all means to transfer scientific information into easily understandable messages.

In the early stages, risk communication was interdependent with the scientific approach to risks, which contained three major steps including risk assessment, risk characterization, and risk management (Stern, 2007). Risk assessment is to rely on science and statistics to calculate the probability of a hazard's occurrence and the magnitude of its potential loss. Number or percentage is almost the only thing that can be showed to the public from risk assessment. The next step is risk characterization, in the process of which several characteristics of risk have been identified, for example, how serious the impact will be on current setting, and how harmful the consequences will be to future generations. Results from characterization can be used to give laypeople a descriptive explanation for establishing an image of risks. Based on the quantitative and qualitative analysis of risk, risk management begins to function. Experts and regulators have endeavored to improve informational and response systems for reducing the negative effects, controlling the potential loss, and avoiding forthcoming threat.

All the efforts made appear to be on the precondition of seeing hazardous event itself as the focal issue. However, it is the victims, including a large population of laypeople, who are exposed and react to real risks that produce ripple effects at different levels in the human society.

Follow-Up Stages: Audience-Oriented Risk Communication

In the following phases of risk communication evolution, instead of simply educating laypeople, experts and regulators shifted the attention to cooperate with the public by observing and predicting their reactions. Laypeople, embedded in a socially mediated communication network, had been taken as not only the target in communication, but also the partner in transmitting information (Covello & Sandman, 2001). From the perspective of social amplification of risk (Kasperson et al., 1988), individuals belong to the amplification station category, which decode countless signals in risk information according to their subjective judgment about the risk. As a result, the actual risk event is likely to be amplified or attenuated by individuals through their intensifying, weakening, or filtering the signals. Not limited to a vast social relationship network at individual level, effects caused by people's modification of information may also extent to a societal level, for instance, rumors and chaos leading to an institutional crisis. Therefore, investigating laypeople's cognitive processing of risk information is of great importance to intervene people's functioning in the informational system.

With the purpose of guiding rational interpretations of risk event and coping actions, experts and regulators start to explore factors that influence laypeople's thoughts and behaviors in a response to risk. Combined with risk perception research, it is found that the media, also as one major amplification station, can play a persuasive role in people's cognition building (Kasperson et al., 1988). Information with positive mood, alerts, and elements alleviating worries is likely to decrease people's risk perception; on the contrary, information with negative mood, stigma, and elements diminishing personal beliefs is likely to increase people's risk perception (Slovic, Finucane, Peters, & MacGregor, 2010). Additionally, information from sources with high credibility is likely to decrease the levels of laypeople's perceived risk, and vise vasa (Renn & Levine, 1991). Since previous studies prove that risk perception can significantly predict behavioral intentions that will engender actual doings to prepare for risks (Terpstra, 2011). Therefore, the effectiveness of risk communication is derived from the audience feedback either cognitive or behavioral.

Modeling from A Social-Cognitive Perspective

The Social Cognitive Theory and Efficacy Beliefs

The social cognitive theory, expanded upon the social learning theory, could be introduced as a possible theoretical framework for human-centric risk communication modeling. Also known as SCT, the social cognitive theory is said to connect cognitivists and behaviorist together to explore the mechanisms of human development from a perspective that accentuates the interrelationships among humans' cognition, action, and the environment they are embedded in (Bandura, 1986). Unlike other human functioning theories suggesting humans' behavioral change is either manipulated by external stimuli or driven by internal forces, SCT negates the one-side determinism and asserts that humans are developing within a triadic reciprocal interplay among their personal characteristics, behavioral idiosyncrasies, and environmental influencers (see Figure 1). In evolution, humans are endowed with capabilities that enable them to be plastic for an enduring development, which indicates that humans are self-controlled, self-regulated, and proactive through an observational learning from the environment (Bandura, 2001). As a functioning agency, humans also reinforce the surroundings by changing their cognitive and behavioral pathways (Bandura, 1986). In the triangle-shaped structure, the three bidirectional causations may not happen simultaneously or share the equal strength of effect (Wood & Bandura, 1989). Instead, the three sets of determinants are operating in a longitudinal process and interacting with each other dynamically.

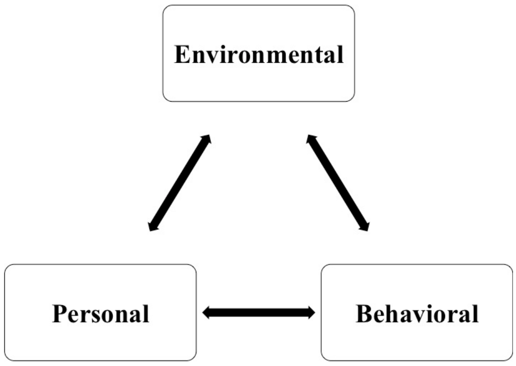

Figure 1. The Triadic Reciprocal Relationship among Environmental, Personal, and Behavioral Determinants

From the perspective of SCT, among a large number of psychological and cognitive factors that affect human actions, none is more influential than people's belief in their capabilities of controlling over events that impact their daily life and exercising actions to manage prospective situations (Bandura, 1989). Coming from mastery experience, vicarious learning, social persuasion, and personal psychological status, efficacy beliefs regarding execution of a course of actions will activate four major processes operating in concert in the ongoing regulation of human functioning (Bandura, 1995). The four processes include cognitive process that visualizes anticipatory outcomes for goal setting, motivational process that facilitates self-regulation for efforts exerting, affective process that produces psychological stress affecting individuals' perception of the environment, and selection process that supports individuals' choosing of suitable environment for further development. Previous studies have invited self-efficacy to predict behaviors, which have affirmed that self-efficacy has the closest association with behavioral variables and the most powerful predicted effects on behaviors (Schwarzer & Fuchs, 1995).

The Hypothesized Structure

The idea to adopt the social-cognitive approach is to demonstrate a possible theoretical direction for the future phases of risk communication evolution. The hypothesized model presented here takes individual as coordinator in the informational system. They are affected due to their exposure to social environment; in the meantime, they are affecting the communication path by their active information seeking and feedback to information sources. First, people's psychological and cognitive status will be determined by environmental factors through observational learning. Individuals are supposed to obtain vicarious experiences from risk regulators, other people around, and different media. Whether they trust or distrust in those agencies and how they evaluate their performances and contributions will influence their risk perceptions as well as their information seeking behaviors. Then, the increased or decreased risk perceptions and results of continuous information seeking behaviors will act on the societal and media environment as a feedback to the effectiveness of risk communication. At the individual level, people's risk perception will predict their actual information seeking behaviors through the acting of their outcome expectations and self-efficacy regarding exertion of the behavior. In a longitudinal process, risk-related knowledge will be enriched and modified by information seeking and dynamically changes individuals' levels of perceived risk. The hypothesized structure is shown in Figure 2.

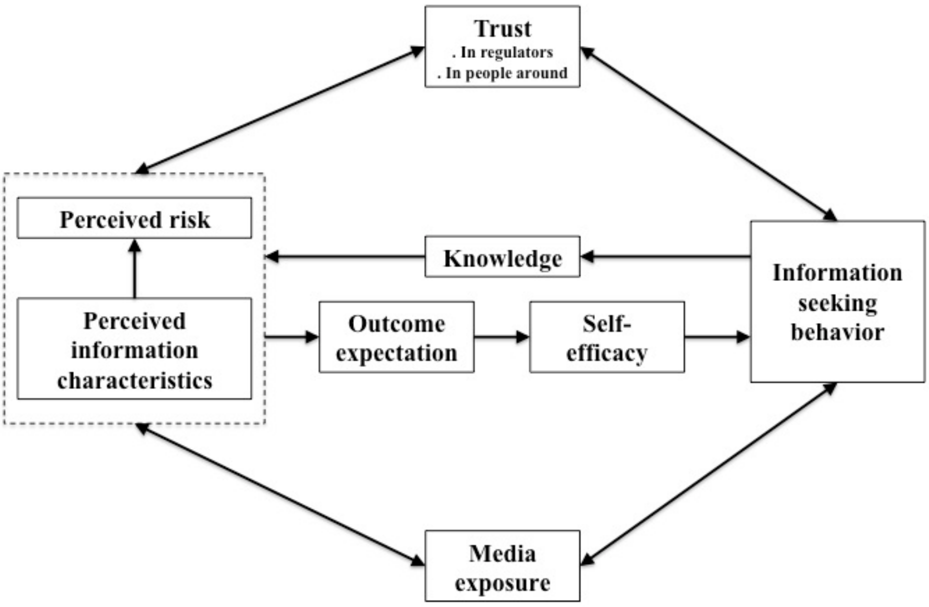

Figure 2. The Hypothesized Structure from A Social-Cognitive Perspective

Conclusions

Risk communication has undergone its own evolution for over 30 years. Although it has made considerable progresses at each phase to obtain new findings and skills, an ongoing discovery of more complicated problems to solve is impossible to avoid (Fischhoff, 1995). Facing the impact of new media technologies, risk communication needs to shift its focus and paradigm for overcoming the challenges from changes in information production and transmission, and plan well functioning communication scheme for improving its effectiveness. The fundamental impulsion of communication is to bolster humans' adaptation and reinforcement to the environment (Lang, 2013). By acknowledging communication as a natural aspect of human development, human-centric variables should be the central topic in discussion. Regarding risk communication, the general public is rather the partner than the target in information circulation since laypeople's reactions to risk are likely to cause ripple effects at different levels of the social system, especially in the age of new media that enlarges communication network as well as escalates the involvement of individuals. For this reason, more comprehensive and powerful frameworks are required which can embrace rather than just accommodate the update of media environment. Modeling from a social-cognitive perspective could be an extra possibility to aid human-centric risk communication by integrating psychological or cognitive, behavioral and contextual factors that operates reciprocally to determine human functioning. Although it is not easy to utilize the social cognitive theory entirely since it is broad reaching and difficult to define variables, several key concepts in SCT such as self-efficacy and outcome expectation could be applied as latent variables to examine causalities. In future research, it demands more empirical findings to verify the explanatory power of the model proposed in this manuscript. Also, this theoretical structure may provide implications and suggestions for risk communication practice, for instance, tactics to convey risk information through altering signals fixed in messages.

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Ten Years of Internet Public Opinion in China: from Hot Issues to an Analysis of Its Trend

Liu Rui
Liu Yi

Abstract

The burgeoning of the new media has brought about profound changes to China's media environment. The frequent incidence of public opinion events had raised the attention and concerns of the nation, society, and academics. Based on the strong technique support of Shanghai Jiaotong University, the self-developed database of chronicle public events, and the data mining and statistical analysis skills, the Public Opinion Laboratory of Shanghai Jiaotong University carried out series of studies. The studies include the change of the public events over the past 10 years, as well as the public opinion features, media platforms, intervention strategies, and influence to the public policies. The study included 5000 hottest public events between 2003 and 2012. The main findings include: (1) the incidence and heat of the public events increases over the past ten years; (2) new media gradually take the advantage of "first coverage" from traditional media and the spreading speed is increasing; (3) intervention to the public events is speeding up and the effect is getting better; (4) public events promote public policies, and the news reporters and opinion leaders play important roles.

Keywords: Online Public Opinion, New Media, Attention, Broadcasting, Intervention, Public Policy

Introduction

With the development of New Media, the media ecological environment has gone through tremendous changes. The single channel of information dissemination has been broken and transformed into an open and interactive multi-center. The Internet has become a very important tool for the Chinese citizens to express their demands, opinions, and supervise the authorities. It has also become the platform for many public events and as a result imposed huge pressure that all the departments, organizations and even public figures concerned could not ignore.

In 2003, symbolized by Sun Zhigang incident, a revolutionary new form of public opinion—network public opinion, officially entered the field of public discourse. Ten years later, the public opinion in China today is booming and developing rapidly. Chongqing's Most Stubborn Householder incident, Southern China Tiger incident, Deng Yujiao incident, Qian Yunhui incident, Guomeimei incident, Wenzhou's High-Speed Train Crash, Yao Jiaoxin incident, Wang Lijun incident—each of them is the testimony of the changes in Chinese social public opinion, influencing the social development in China.

In 2013, China's network public opinion has been developing for ten years. What kind of changes has it experienced? What are the reasons? What kind of influences has it produced upon China's society? What kind of rules can be found from it? How do the network public opinion and the nation's economic society interact with each other? All these are the many academic topics that needs consideration and discussion.

In this paper, we select the top 5000 cases among 22,000 hot issues from the *China Public Events Database* we have developed by ourselves, and analyze them by using the data mining and statistical analysis method, trying to depict the characteristics, rules and trends of occurrence, and the principles of communication and responses, thus providing references and basis for administration, policy decision and scientific response for public opinion.

Research Methodology

1) Research hypotheses: The network public opinion is an assembling of cognition, attitude, emotion and behavioral tendency stimulated by online communication about all kinds of events.[1] Therefore, in this paper, we study the events through analyzing the top 5,000 online hot issues, exploring the rules of development and communication of network public opinion, the reasons, the government intervention and its influence on the public policy of the government. It is to be noted that all of the materials are based on the open reports and news.

2) Research tools: In this study, we use the China's Public Event Database developed by the Public Opinion Research Laboratory at Shanghai Jiao Tong University. Through data capture, aggregation technology, the platform acquired more than 22,000 public events since 1994, thus providing a strong technical foundation and data support for this study. In the process of data analysis, this study explores the characteristics of the variables and relationships with SPSS statistical software via descriptive analysis, correspondence analysis, chi-square test, difference test and regression analysis and other statistical techniques.

3) Establishment of samples: With the powerful data mining technology founded on Chinese public events database, this study screened more than 5,000 influential public events of over 1000 points from more than 22,000 cases in the public events library as the total sample.

Major Findings

1) The number of public opinion events increased year by year, with the heat they caused rising with volatility

With time as the independent variable, if we conduct a curve fitting of the number of samples which have greater impact on public opinion in China every year, it can be found that a cubic curve equation (see Figure 1) is the best fit ($R2 = 0.983$, $p < 0.001$). Figure 1 reflects the public opinion, the number of events each year and the actual value of the fitted curve equation. It can be found that in the decade of 2003-2012, the number of Chinese public opinion has been trending upward trend, including a rapid growth from 2003 to 2005, a slowdown in growth from 2005 to 2009, and another

1 Zeng Runxi: "Network Management and Control Working mechanism of Public Opinion", *Library and Information*, 2009 No.18, page 79.

rapid growth from 2009 to 2012 (which increased year by year, and proved to be the highest in the decade).

The three stages of trends and Chinese Internet is directly connected with online media development. In 2003 the rapid development of network technology, forums and social networking sites have opened up a new avenues for Chinese citizens to enhance their awareness of and encourage their participation in public events. Citizens' Rights Year " and the government information disclosure system was established in that year.

In 2003, such incidents as the Sun Zhigang incident, the Songhua River pollution incident in 2005 have caused heated discussion among the netizens. That may be one of the factors that led to the rapid growth in 2003-2005. And four years later, in 2009 the Chinese microblogging entered an epochal stage of the Internet and became increasingly popular, as a result of which the year 2010 was known as "the first microblogging year." Microblogging subsequently led to the rapid development of various new media, coupled with the popularization of smart phones and other mobile terminals, the continuous expansion of new network application and the surging of the number of participants. Thus the year 2011 was dubbed "the first micro-blog application year." Microblogging has gradually become one of the major platforms for the public 's participation in public affairs, and microblogging media have played an important role in many incidents such as the Li Gang incident, the Yao Jiaxin incident, the Tang Hui case and other incidents.

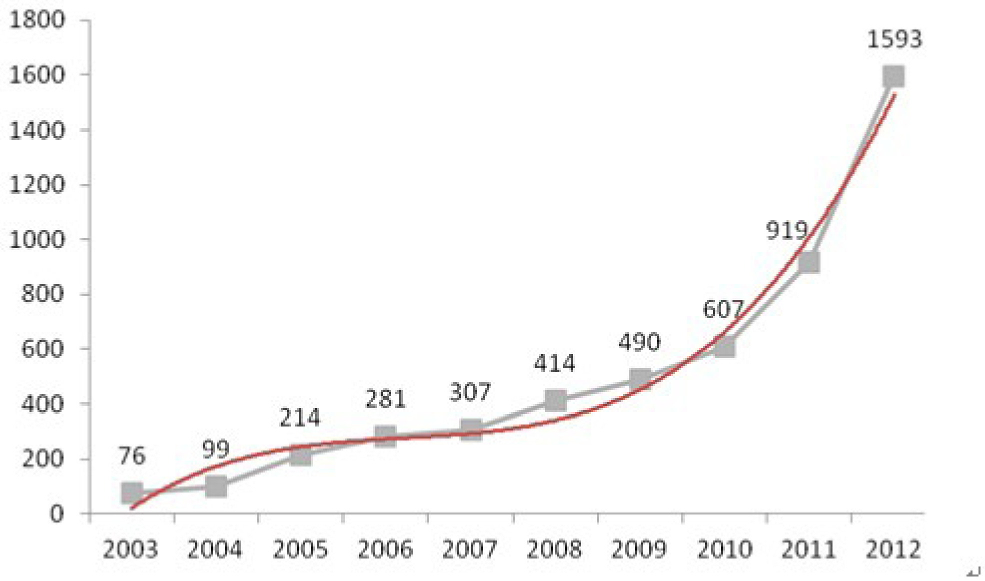

Figure 1. growing trend of public opinion events, 2003-2012

Judging from the attention paid by the media and of the Internet users from 2003-2012 (see Figure 2), during that period, the media's and the Internet users' concern caused by the public opinion events that caused relatively great impact fluctuated and trended upward, and reached a peak in 2005 and 2008, and in 2012 reached the highest point in 10 years. The Media and Internet users were greatly concerned about the major events as well as the social context represented by the media environment. In 2005, Chinese Internet users exceeded 100 million, and Web2.0 becoming the hot word in the year. Blogging in the development of new media has become one of the biggest highlight of the year.

This year, the outbreak of bird flu, Lian's and Song's journey to Chinese Mainland, the launch of Shenzhou VI, commemoration of the Chinese People's Anti-Japanese War and World 60th anniversary of victory over fascism, She Xianglin's murdering his wife, the Songhua River pollution incident, Sudan events, etc, raised great concern among the Chinese people. "When the Shenzhou VI was launch on October 12, the traffic to Sina in 24 hours reached a breakthrough of 450 million, breaking the previous 2004 record made during the Athens Olympic Games."[2] In 2008, when the heat brought by forum discussion and blogging was still blooming, major public opinion events such as the Beijing Olympics, Wenchuan earthquake, the boycott of Carrefour, the anti-CNN event, the Sanlu milk powder case, the

2 http://media.people.com.cn/GB/3958527

launch of Shenzhou VII, the assault on police officers, the killing of college students by six police officers in Harbin setting off a wave of public opinion; in 2012, mobile phone exceeded desktop computer for the first time and became China's mostly widely used Internet terminal; by the end of the year , China's microblogging users had scaled up to 309 million, and mobile microblogging users had reached 202 million.[3] The number of Wechat's registered users reached 270 million[4], becoming a new media form that brought great attention. And this year, the 18th Congress , London Olympics, Wang Lijun incident, Diaoyu Island incident, the doomsday rumors, the heavy rainfall in Beijing has also been quite remarkable, etc. , and widely disseminated through a variety of media forms.

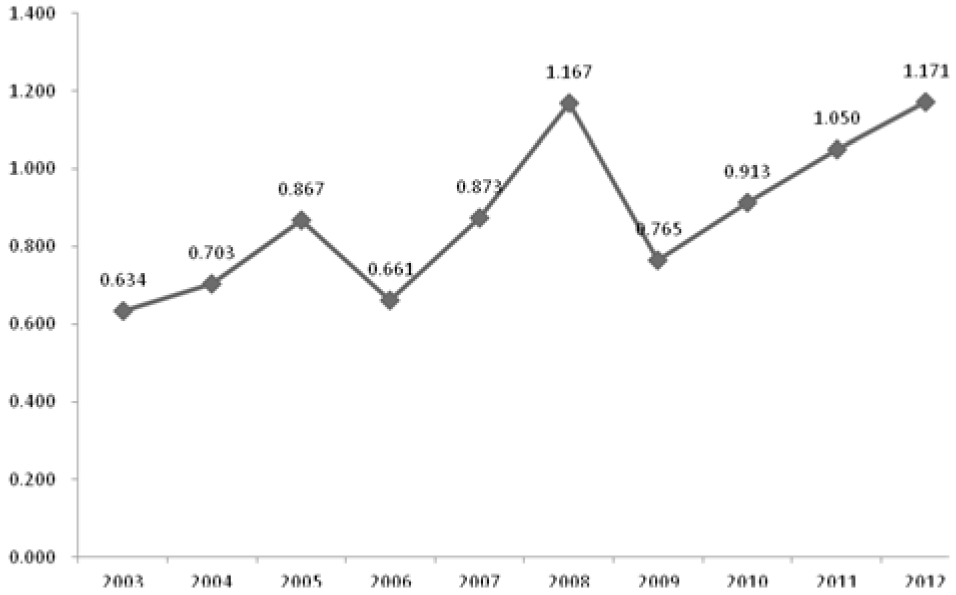

Figure 2. annual analysis of the events that influenced public opinion attention of the media and Internet Users in 2003-2012

2) New media gradually taking over "first coverage" advantage of traditional media, with mass media speeding up

Before the Internet era, the traditional media was the main vector of public events, public participated in news production mainly through disclosing news materials to the traditional media reporters, contributing to the newspapers, radio station or television station, or calling the hotline, etc., and the entire news production process was controlled and led by special news media organizations. With the rapid development of network technology, new media have achieved zero time difference between the social reality and the media, breaking the traditional media's "professionalism barrier" and providing a more convenient platform for the general public to express their opinions. Internet media, microblogging, forums, blog and other social media, became an important source of news and information flashpoint, featuring rich, convenient and interactive information, taking over the "first coverage" inherent advantage of traditional media.

The "first coverage" in news reports of is a key element of news competition, and also an important focus in strengthening media influence, news guidance and dissemination. From 2003 to 2012, the distribution of the media (domestic) that first exposed the public opinion events of great influence is shown in Figure 3. In the 4897 valid samples, new media, the public events first exposed by new media takes up about sixty percent of the total events, ($x2 = 21.590$, $p < 0.05$), significantly higher than the traditional media. The new media has become a main channel to first expose public events, taking over traditional media's advantage "first coverage".

3 "The 31st China Internet Development Statistics Report", the China Internet Network Information Center, January 2013

4 http://www.199it.com/archives/84193.html

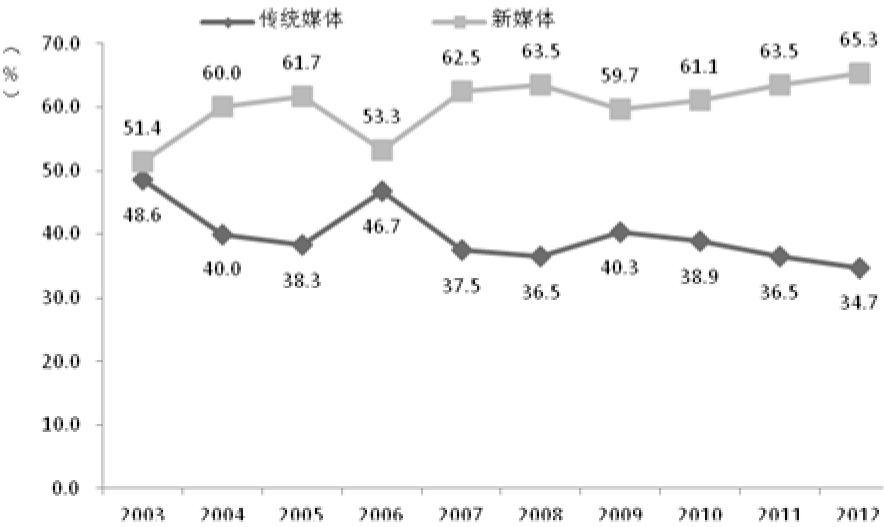

Figure 3. 2003-2012 Distributing graph of the media (domestic) that first exposed the public opinion events of great influence

The rise of new media has accelerated the propagation velocity of social public opinion events. As shown in Table 1, from 2003 – 2012, 1052 public opinion events were exposed within less than half a day after they occurred, accounting for 24.6% of the total. When it comes to duration time, among the 4,985 valid samples (with 15 valid samples deleted), most of the public opinion events lasted within one week, accounting for 41.8% altogether in ten years and taking up the highest proportion, and 21.3% lasted within 1-2 weeks. As for the distribution of each year (see Figure 4), the number of the public opinion events that lasted within one week also ranks the first; from 2003 to 2007, it went through a relative gentle fluctuation and a sudden surge in the recent two years. Public opinion events that lasted within 1-2 weeks accounted for a proportion that showed a relatively gentle upward trend. If we run a chi-square test of the duration time of public opinion events and annual, the result is $\chi 2 = 217.357$, $p < 0.001$, which shows the significant differences in event duration and the annual differences; that is to say, the duration of public opinion events significantly changes according to the annual changes.

Table 1.
Analysis of the duration of public opinion events of relatively great influence and annual analysis from 2003-2012.

Unit %

Year / Duration of public opinion events	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	合
Within 1 week	31.5	33.3	32.4	33.2	34.6	42.5	34.6	35.9	44.2	49.9	41.8
1-2 weeks	28.8	16.2	18.8	19.6	21.6	19.3	23.4	20.4	22.9	21.1	21.3
2week-1 month	12.3	19.2	12.2	12.9	14.7	9.4	14.5	15.1	14.8	12.1	13.3
1-2months	4.1	12.1	10.8	6.8	8.5	6.5	5.5	9.1	6.4	5.8	6.9
2-3months	4.1	3.0	3.3	2.9	3.3	4.6	4.1	3.8	1.7	2.3	2.9
3months-half a year	2.7	1.0	2.8	3.2	2.9	3.9	2.3	3.8	2.2	2.4	2.7
More than half a year	16.4	15.2	19.7	21.4	14.4	13.8	15.6	11.9	7.7	6.4	11.1
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

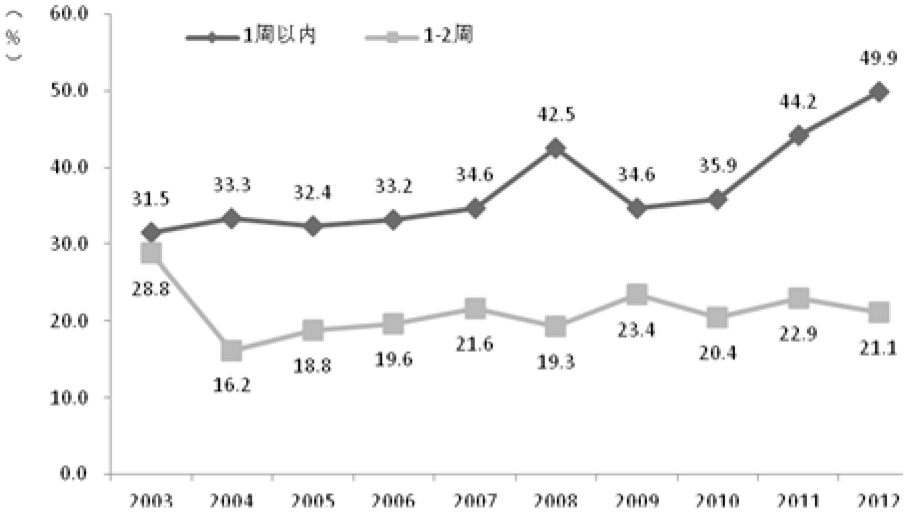

Figure 4. Distributing graph of public opinion events of relative great influence and of events that lasted within 1 week or within 1-2 weeks from 2003 to 2012

3) The overall timeliness of public opinions bodies improved, with enhanced intervention capacity, and high efficiency of intervention

(1) Intervention timeliness: The number of events that were intervened in within half to one day after exposure increased generally, while the number of events that were intervened in over a month after exposure was in decline.

With the 502 samples without intervention, 623 without significant intervention and the 109 unknown samples excluded, the remaining 3766 samples were analyzed. A chi-square test was run on the time lag from the time of exposure to that of the involved body's first intervention and the year value, and the result is: $\chi 2 = 179.483$, $p < 0.001$, which indicates that there was a significant difference in the time lag between the time of exposure and that of the involved body's first intervention in different years; that is to say, the time lag between the time of exposure and that of the involved body's first intervention changed significantly with the year.

Table 2 shows that between 2003 and 2012 the number of events which were intervened in with a time lag reach 1,949 cases, accounting for 51.8%; exposure time difference between the number of events before the intervention for each year also ranked first in proportion, but the overall downward trend. Except 2004, the proportion in 2003-2010 was higher than 50.0%, while the average in 2011 dropped to 50.0% and less. This reflects that on the one hand, with the introduction of a variety of new media, especially when individual media platforms such as microblogging has become widespread, and on the other hand, the exposure time of public opinion events is getting increasingly faster, leaving the bodies concerned much shorter time for intervention.

In addition, the proportion of the intervention time from half a ay to one day is increasing, especially since 2010, the proportion has been over 10.0%, which was never the case from 2003 to 2009. At the same time, the proportion of public events intervened later than one month (1-3 months, 3-6months, more than 6 months) is decreasing. In 2012, the proportion of public events intervened between 1- 3 months was the lowest except in the year of 2003. However, the intervention time between 3-6months and more than half a year was the lowest one after 2008. These changes reflect that adapt to the public event spreading speed, the intervention timeliness is increasing accordingly.

Table 2.
Greater impact on public opinion, 2003-2012, the exposure to the time difference between the subject and the first intervention of the year

Unit %

Year / time	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	合
Intervened before exposure	73.1	49.4	63.0	55.5	53.0	52.7	57.5	51.5	46.6	49.5	51.8
Intervened when exposure	3.0	19.5	5.2	5.5	12.4	7.1	11.1	8.1	8.2	11.6	9.6
Within half a day	11.9	7.8	14.3	11.0	8.9	10.9	8.9	11.0	12.4	12.0	11.4
Half a day-1day	6.0	3.9	5.2	6.4	6.4	9.5	6.2	9.2	11.4	11.1	9.3
2-3 days	0.0	1.3	3.2	4.1	5.4	4.8	2.7	5.6	7.6	6.4	5.5
4-6 days	0.0	1.3	3.2	6.0	2.5	3.7	1.6	2.7	2.9	2.4	2.7
7-15 days	0.0	7.8	1.9	5.5	4.0	5.1	5.7	4.8	3.2	2.2	3.6
15-30 days	3.0	5.2	1.3	1.4	2.0	1.7	1.9	1.7	1.9	2.0	1.9
1-3 months	0.0	3.9	2.6	1.4	4.5	1.0	1.4	2.5	2.2	1.2	1.8
3-6months	0.0	0.0	0.0	0.9	0.0	0.7	0.5	0.6	0.3	0.2	0.3
More than half a year	3.0	0.0	0.0	2.3	1.0	2.7	2.4	2.3	3.3	1.5	2.1
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(2) The Government's response effect: public evaluation of neutral and positive attitude toward the events accounted for more than half of total, few of them are question, but the question trend is increasing in past ten years.

Excluding the 1827 sample with no response, 165 invalid samples, and 6 unspecified samples, we analyzed the 3,000 samples. To run a chi-square test on the government's response and the annual value, the result is as follows: χ^2 = 305.701IPII0.000III0.05 χ^2 = 94.468⍰p < 0.001. This shows that the government response effect has a significant time difference, that is to say, the government's response effect would change significantly with the time changing.

On the whole (see Table 3), from 2003 to 2012, among the social events with big influence, the proportion of the public's "neutral" view of the government's response accounts for the largest proportion, followed by "generally positive " and "widely recognized", while government response viewed as "questioned" or "widely questioned" attitude accounts for a relatively small proportion.

In the past ten years, the public evaluated as "neutral" event has gone through a roughly wavy trend with less volatility. The number of Events viewed by the public as "generally positive " increased quickly from 2003 to 2006 and then decrease after that, but the overall volatility is more gentle. The number of Events viewed by the public as "widely recognized" experienced a substantial downward after 2005, but showed an increasing trend in 10 years. From 2004 to 2008, the proportion is about 6.0%, and arrived at 10.0% from 2009-2012, and the ratio is increasing successively in recent years, peaking in 2012: 15.9%.

People evaluated as neutral and positive occupy the majority of all tell that the public basically approved with the government's intervention to public opinion. The effect of government responsive intervention in public opinion is good. But on the other hand, the fact that the proportion of events of which the government's responses were viewed as questionable is increasing shows that the government still has some defects and shortcomings in its responses to the public events, not widely recognized by the public. In recent years, public awareness of government intervention is increasing; that is, whether the government responds or not, the public is always doubtful. Facing such a situation, all levels of government should uphold the principle of keeping an open and fair attitude, focusing on institutional improvement, so as to enhance the credibility of the government and to avoid the trap of Tacitus trouble.

Table 3.
Greater impact on public opinion, 2003-2012 Government's response to the event and annual analysis of the effect

Unit %

Effect of Government's response	Widely Positive	Positive	Neutral	Questioned	Widely Questioned	Total
2003	27.3	6.8	45.5	15.9	4.5	100.0
2004	32.0	14.0	44.0	6.0	4.0	100.0
2005	34.7	19.5	38.1	5.9	1.7	100.0
2006	17.9	26.5	42.6	6.2	6.8	100.0
2007	19.1	21.4	45.7	7.5	6.4	100.0
2008	26.3	21.9	40.6	4.5	6.7	100.0
2009	20.5	17.6	45.5	11.2	5.1	100.0
2010	20.0	20.5	39.1	12.9	7.4	100.0
2011	14.4	21.2	46.3	13.4	4.7	100.0
2012	19.0	21.3	37.5	15.9	6.3	100.0
Total	19.9	20.7	41.5	12.1	5.8	100.0

4) The impact of public opinion on public policy deepened, news reporters and opinion leaders play an important role

With the Internet becoming a public space for the expression of public opinion, public opinion has become an important channel for the citizens to influence political life. In recent years, the endless stream of public opinion incidents became a source of stimulus that allows public opinion to be observed by decision-making departments. Many events have exposed the longtime conflicts and public demands and as result influenced policy agenda. Mmany public opinion events directly triggered the relevant legislation or policy formulation and modification. From the "Sun Zhigang incident" and "SARS" in 2003to the recent case of "Xiamen PX Incident" (2007), "Sanlu milk powder incident" (2008) " the 'hide and seek' event in the detention center in Yunnan '(2009), Shanghai fishing law enforcement (2009), Gansu school bus accident (2011), "children suffocated in Bijie" (2012), the rapid convergence of network public opinion produced pressure and pointed directly to ineffective oversight of government policies and safeguards issues, urging the introduction of a number of important laws and regulations, the release of many public decision-makings, amends or abolitions.

(1) Events that promoted the establishement or modification of public policy increased yearly, mainly related with the environment, food safety, education and protection of vulnerable groups and other issues.

From 2003 to 2012, among the 5000 public opinion incidents that caused high heat, there are 423 incidents that directly led to new legislation, policies abolishment, and policy changes by the government decision-making departments, such as public opinion that brought about proposals to the NPC and the CPPCC. As the Internet is increasingly accepted and utilized by the public, the proportion of public events that influence public policy making yearly in the last decade increased every year, from 1.9% in 2003 to 30% in 2012 (see Table 4). Among them, the proportion of events from 2003 to 2009 that promoted policy making was below 10%, counting between eight (2003) to 42 cases (2005, 2009). In 2010, the proportion was 10.4%, with 44 event; in 2011 and 2012 , there was a sudden surge, up to 77 and 125, and the proportion reached 18.2% and 29.6% respectively. For the decade, the events that promoted public policy making is primarily related to environmental pollution, food safety, education, protection of vulnerable groups (such as children, the elderly, women, protection) and other issues.

Environmental pollution is usually due to the production and the improper sewage, and endangers the health of the people in a certain area, leading to people's demand on the relevant policy departments to deal with the urgent needs. Such events promoted the establishment of "Environmental Information Disclosure" (Trial) and the adjustments of related environmental policies. Typical cases such as "Xiamen PX project" (2007), "Wuxi water crisis" (2007), Taizhou, Zhejiang lead poisoning (2011), "a large area of Wuhan haze" (2012), Guangxi Longjiang cadmium pollution incidents (2012), etc., all those cases have had significant influence on the proposals, modification, revocation of public policy, and have become an important tool for the public to express their concerns and protests.

Since 2008, cases concerning food safety such as the case of Sanlu milk powde , primed the publication of "Food Safety Law" (2009); the promulgation of the spate of "waste oil", "poison capsule event", "the case that Foshan enterprises purchased industrial brine to make sauce " the case that CCTV host Zhao Pu exposed old yogurt jelly made out of old leather shoes, "Hitian'sarcinogenic soy sauce" and other food safety incidents have repeatedly caused the policy adjustments by the State Food and Drug Administration. Such public opinion incidents are all originally caused by product and service quality.

Education and protection of vulnerable groups, has always been a hot public topic and the number of relevant public events is constantly on the rise in recent years; the college entrance examination on the off-site policy, the national long-term education reform and development plan, "accounted pit classes," teacher tenure, aid education in poor areas, quality standards of teaching staff and other related policies are undergoing a series of discussion and revision; the protection of vulnerable groups is mainly related to the protection of the elderly (such as " Technical Guide To Intervention in Cases Involving Old People "), child protection (such as "school bus safety regulations"), poverty groups protection ("rural compulsory school nutrition improvement program") and so on.

Table 4.
Distribution table of influential public opinion events that have promote public policies from 2003-2012

Year	Frequency	proportion	Valid proportion	Accumulated proportion
2003	8	1.9	1.9	1.9
2004	12	2.8	2.8	4.7
2005	42	9.9	9.9	14.7
2006	15	3.5	3.5	18.2
2007	26	6.1	6.1	24.3
2008	32	7.6	7.6	31.9
2009	42	9.9	9.9	41.8
2010	44	10.4	10.4	52.2
2011	77	18.2	18.2	70.4
2012	125	29.6	29.6	100.0
total	423	100.0	100.0	

(2) News reporters and opinion leaders play an important role in the media influence public policy

In the 417 valid samples that have promoted public policy, incidents first exposed by network news and newspapers accounted for sixty percent (see Table 5), 132 and 122 respectively, significantly higher than the total of those exposed by television (5.0%), radio (1.2%), magazines (0.2%), news agencies (5.8%), forum communities (4.6%), blog (1.0%), instant messaging (0.2%), microblogging (9.1%), and the official website (12.0%).

Newspaper reports were mainly professional news reporter, network news is mostly an extension of the traditional paper media, and the main source of information is also dependent on the news reporter. Therefore, in the public policy events that affected public policies, news reporters have a profound impact on the public agenda and the policy agenda as an important social information digger, supervisors, and the gatekeeper. In addition, events media exposed by microblogging, forums and other media will also enter into the agenda of the news media; as an information professional, the news media play a more important role in policy agenda-setting than individuals and general institutions or organizations (except information manager (government) or spreader (opinion leaders)).

Table 5.

2003-2012 cross analysis of the public opinion events of great impact that promoted public policy and the media that first exposed them.

Media		Frequency	Proportion	Valid proportion	Accumulated proportion
	Newspaper	122	28.8	29.3	29.3
	Television	21	5.0	5.0	34.3
	Broadcast	5	1.2	1.2	35.5
	Magazines	1	0.2	0.2	35.7
	News agencies	24	5.7	5.8	41.5
	Internet news	132	31.2	31.7	73.1
	Forum communities	19	4.5	4.6	77.7
	Blog	4	0.9	1.0	78.7
	Instant messaging	1	0.2	0.2	78.9
	Microblogging	38	9.0	9.1	88.0
	Official website	50	11.8	12.0	100.0
	Total	417	98.6	100.0	
Missing	others	6	1.4		
Total		423	100.0		

Seen from the involvement of opinion leaders, the situation of 4,975 valid samples between 2003 and 2012 showed that whether there is a significant correlation between whether public opinion leader is involved and whether public policy making is promoted ($\chi2 = 7.896$, $p < 0.01$). In the events that promoted public policy, 10.4 percent of the events involved opinion leaders' participation, but in the events that did not promote public policy, only 6.7% percent of the events involved opinion leaders' participation (see Table 6). The participation of opinion leaders in public opinion, on the one hand, heated up public opinion, expanding the scale of attention of the media, the Internet users and related policy departments; on the other hand, played a strong role in guiding public opinion. Opinion leaders are important central nodes for the dissemination of information and also have a powerful agenda-setting function and play an important role in influencing public policy.

Table 6.
from 2003 to 2012, analysis of whether public opinion events of relatively great influence promoted public policy and whether opinion leaders were involved

Unit: %

whether opinion leaders were involved / whether promoting public policy	No Opinion Leaders	Opinion Leaders	Sum
promotion of public policy	93.3	6.7	100.0
No promotion of public policy	89.6	10.4	100.0
Sum	92.9	7.1	100.0

Conclusion

This paper studied the changes of public opinions in the 2003-2012 decade, the change of media platform, changes in responsive intervention, the impact of changes in public policy and other aspects of the evolution of public opinion, and rules of public opinion events and its propagation, intervention principles. The findings are as follows:

Public opinion, the number of events increased year by year, with the heat rising with volatility; the impact of new media has become increasingly extensive, and gradually took away, the "first coverage" advantage of traditional media; the speed public opinion propagation in increasing, incidents exposed within less than half a day takes up the highest proportion, with most public opinion events lasting within a week.

The overall timeliness of public opinions bodies has been improved, with enhanced intervention capacity, and high efficiency of intervention. It is proved by the fact that: the number of events that were intervened in within half to one day after exposure increased generally, while the number of events that were intervened in over a month after exposure was in decline. As for the effect of response, events marked by neutral and positive responses took up a relatively large proportion.

The impact of public opinion on public policy is deepening, and the number of the events that promote the establishment or modification of public policies are increasing yearly, mainly concerning environment, food safety, education and protection of vulnerable groups and other issues; news reporters and opinion leaders play an important role in the promotion or modification of public policy.

To Whom Are We Listening?: Contextualizing Twitter Data in the Era of Online Election Campaigning in Japan

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Abstract

Japan's long ban on online election campaign was lifted in time for the Upper House Election in July 2013, allowing political parties, candidates, and voters to use SNS (Social Networking Sites) and other websites for campaigning. Before and after the Election Day, some Japanese newspapers and television news used Twitter, a social networking service, for analysis of online campaigning and voters. In marketing research, Twitter has been used as a platform for "social media listening," a tool to understand consumers and now it is being applied to voters in Japan. However, do we know to whom we are listening? The paper attempts to contextualize Twitter data by examining the characteristics of Twitter users from the results of the national representative door-to-door surveys conducted in June and July 2013. The survey results show that the Twitter users represent a small proportion of the population, distinctively young and educated. Meanwhile, users who "tweet" and read about politics on Twitter are somewhat different. The paper shares some implications for research users and online campaigning.

Keywords: Social Networking Sites (SNS), Big Data, Electoral Politics, Online Campaigning

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Introduction

Japan's election law had prohibited any online election campaigning until the recent revision enacted in April 2013. The long ban on online election campaign was lifted in time for the Upper House Election in July 2013, allowing political parties, candidates, and citizens to use SNS (Social Networking Sites) and other websites during the official campaign period, which is a few weeks prior to the Election Day (*Koushoku Senkyo Hou,* or Public Offices Election Law). Until this revision, the law had prohibited any significant voter engagement other than the act of voting during the official campaign period (Wilson, 2010, p.3), from the day of the official election announcement to the day before the Election Day. Now voters have inexpensive ways to reach out to fellow citizens to advocate for parties or candidates of their choice. It was expected that lifting the ban on the Internet campaigning would encourage younger people to vote (Jiji Tsushin, December 28, 2012; Mainichi Shimbun, July 20, 2013). The voting ratio has been much lower among voters among 20's and 30's (The Association for Promoting Fair Elections, 2013).

Before and after the Upper House Election Day on July 21, 2013, some Japanese newspapers used Twitter for analysis of candidates and voters. Twitter is a social media service, consisted of 140-charater messages ("Tweets"). Twitter users "Follow" other users of their choice, re-post messages of others to share ("Retweet"), or respond and discuss. Among the mass media, two national newspapers, Asahi Shimbun and Mainichi Shimbun greatly focused on Twitter Analysis, looking at political parties, politicians, and issues tweeted, as well as interaction among candidates, politicians, and voters (Asahi Shimbun 2013, July 3; Mainichi Shimbun 2013). In marketing research, Twitter has been used as a platform for "social media listening," a tool to understand consumers (Rappaport, 2011). Now, social media research is being applied to voters in Japan. The Asahi Shimbun (2013, July 3) said that Twitter analysis would show "tide" of spontaneous public opinions on the Internet, while it would not show a representative picture as public opinion polls do. The Mainichi Shimbun (2013) mentioned that discussions on Twitter would visualize the process of political issues in the making. However, do we know to whom we are listening?

In order to understand the Twitter use before the Upper House election in Japan, the authors have gathered Twitter data that included political party mentions from July 3-15, 2013, randomly sampling 10% of Tweets. Table 1 shows the sheer volume of Twitter mentions and the national proportional representation votes by each political party in the actual election on July 21. The proportions of Twitter data and proportions of the election votes are somewhat similar to each other. However, it does pose some questions--who is it behind Twitter, tweeting political party names? Does Twitter replicate what people talk offline, in face-to-face conversations?

The paper attempts to contextualize Twitter data by examining the characteristics of Twitter users from the results of the national representative door-to-door surveys conducted in June and July 2013.

Table 1.
Number of Tweets with Political Party Names (July 3-15, 2013) and Japan Upper House Election Outcome on July 21, 2013

	Twitter		Election Outcome		Difference
	Number of Tweets (10% sample)	Percentage	Number of National proportional representation votes	Percentage	Percentage Point (Twitter - Election Outcome)
LDP (Jimin-to)	73,707	39.0	18,460,335	34.7	4.3
New Komei-to	8,612	4.6	7,568,082	14.2	-9.7
DPJ (Minshu-to)	34,287	18.1	7,134,215	13.4	4.7
Japan Restoration Party (Nihon-ishin-no-kai)	21,090	11.2	6,355,300	11.9	-0.8
JCP (Kyosan-to)	23,986	12.7	5,154,055	9.7	3.0
Your Party (Minna-no-to)	4,441	2.3	4,755,161	8.9	-6.6
SDP (Shamin-to)	7,580	4.0	1,255,235	2.4	1.7
People's Life Party (Seikatsu-no-to)	5,649	3.0	943,837	1.8	1.2
Other	9,745	5.2	1,603,395	3.0	2.1
	189,097	100.0	53,229,615	100.0	

Election outcome: Ministry of Internal Affairs and Communications (2013)

Background

Oguchi et al. (2013) discuss that the strength of social media research is that it is listening to consumers rather than asking, and listening encourages co-creation. Social media research is differentiated from traditional marketing research for being real time. In addition, social media involves relationship and networks among users. The weakness is that researchers can only see a limited segment of consumers, and that the demography of the users is unknown. Keller and Fay (2012) found that over 90% of conversations of brands are offline, according to a 12-month long survey with more than 37,000 interviews among Americans 13-69 years old.

Some recent studies have used Twitter data for analyzing “predicting” election results in various countries. Gayo-Avello (2012) reviewed several work on Twitter analysis and pointed out that election results prediction with Twitter data might not be replicable due to issues such as following:

1) Previous work only confirmed the similarity of the election results with Twitter data after the election.
2) Studies use different measurements of Tweets—some counts unique users, others count the volume of Tweets—and use different measurements of election outcomes (i.e. number of seats won, number of votes won).
3) Many use sentiment analysis but it is treated as a black box.
4) Tweets are treated all trustworthy.
5) Demography and self-selection bias on Twitter is neglected.

Methodology

In order to find out the characteristics of Twitter users in Japan, data were collected as part of Nippon Research Center’s Monthly Omnibus Survey in June and July, 2013. The Omnibus Survey covers a nationally representative sample of 15-79 years old residents in Japan with door-to-door self-administrative interviews. It employs a stratified quota sampling, using housing map database. The interviewers visit households to ask respondents to fill in self-administered questionnaires, and re-visit to collect the completed questionnaires.

This paper analyzes two surveys that were conducted on June 5-17 and July 3-15, 2013, with 1,200 interviews each, analyzing 2,400 interviews in total. The Upper House Election was officially announced on July 4, launching the 17-day campaign period, and the Election Day was on July 21. Thus, the second survey overwrapped with the campaign period.

The surveys measured Twitter, other social media, and traditional media usage with the following questions: "How often do you see or hear of the following mediums?" and "How often do you send out information with the following mediums?" with pre-codes of "Never," "Less than once a week," "Once or twice a week," "Three to five times a week," and "Almost every day." Those who answered that they use each of the mediums were asked what kinds of information they receive or send out information respectively.

Results

The survey result shows that Twitter users, defined as those who have seen, heard of, or sent out information through the medium, are 15.0% of the population aged 15-79. However, asked about what information they have seen, heard, or sent out on Twitter, only 1.4% of the total chooses "Politics/ Election," or "Political" Twitter Users. "Non-Political" Twitter users are 13.6% of the total.

The same survey asked respondents about face-to-face conversation with family, friends, acquaintances, etc. and in this paper this segment is coined as "Face-to-Face Talker." Twitter Users and Face-to-Face Talkers overwrap—many of Twitter Users have daily conversations offline as well. In order to have mutually exclusive segment, this paper employs the following five groups:

a) "Political" Twitter User: Those who read or write about politics on Twitter.
b) "Non-Political" Twitter User: Those who use Twitter but do not read or write about politics on Twitter.
c) "Political" Face-to-Face Talker (not Twitter User): Those who do not use Twitter, but talk or hear about politics in daily conversations.
d) "Non-Political" Face-to-Face Talker (not Twitter User): Those who do not use Twitter, but talk or hear about politics in daily conversations.
e) Non-Talker: Those who do not use Twitter or have daily conversations.

Figure 1 shows the proportions of the five groups. The largest group is "Non-Political" Face-to-Face Talker, followed by "Political" Face-to-Face Talker (both are not Twitter User). "Political" Twitter User is a very small segment of the population and much smaller than ""Political" Face-to-Face Talker (not Twitter User).

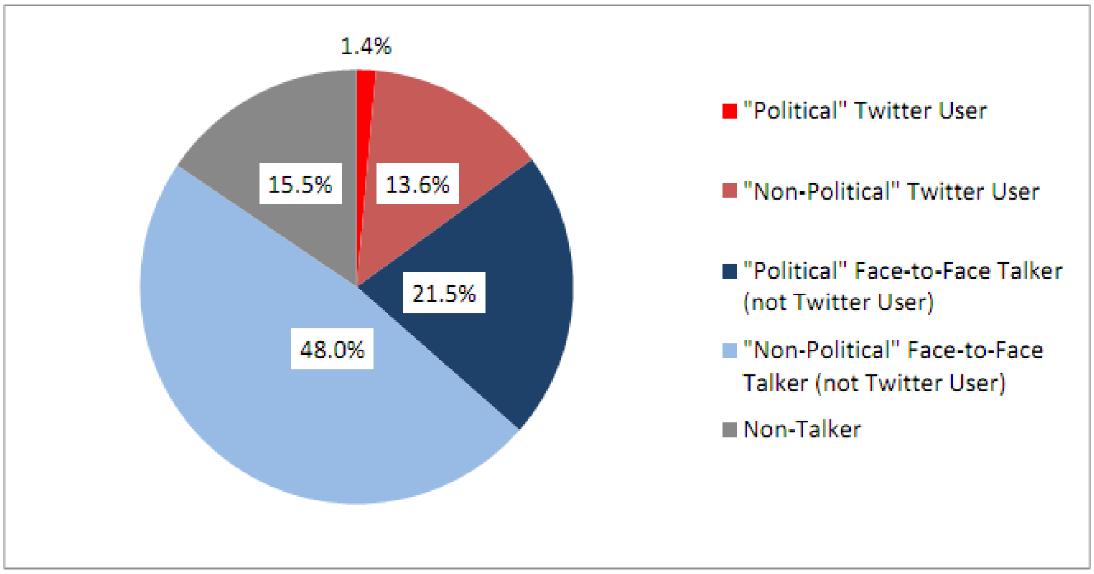

Figure 1. Political/non-Political Twitter User and Face-to-Face Talker
(Base: total population, N=2,400)

Table 2 shows the demography of the five groups. Twitter Users are distinctively younger and more educated. Meanwhile, Face-to-Face Talker (not Twitter User) is much closer to the total in terms of gender, age, and education. When looking at "Political" Twitter User, though it is a small base (N=34), they show somewhat different characteristics compared to "Non-Political" Twitter User. "Political" Twitter Users are significantly more likely to be male, older, and with university/graduate school education.

Looking at Face-to-Face Talkers (not Twitter User), "Political" Talkers are older than "Non-Political" Talkers, but gender and education are not significantly different. Comparing "Political" Twitter Users and "Political" Face-to-Face Talkers (not Twitter User), "Political" Twitter Users are significantly more likely to be male, younger, and university/graduate school educated.

Table 2.
Demography

	Total	Twitter User		Face-to-Face Talker (Not Twitter User)		e. Non-Talker
		a. "Political"	b. "Non-Political"	c. "Political"	d. "Non-Political"	
N	2,400	34	326	515	1,152	373
Gender	(%)	(%)	(%)	(%)	(%)	(%)
Men	49.3	73.5 *b1 *c1	48.8	50.3	46.7	54.4
Women	50.7	26.5 *b1 *c1	51.2	49.7	53.3	45.6
Age		(%)	(%)	(%)	(%)	(%)
15-19	6.0	2.9 *b1	23.0	1.2 *d1	4.7	2.1
20-29	13.0	26.5 *c1	35.6	4.9 *d1	9.9	12.9
30-39	16.9	14.7	16.6	11.5 *d1	19.9	15.8
40-49	17.1	29.4 *b1 *c1	15.3	13.4 *d1	18.8	17.2
50-59	15.5	5.9 *c1	4.3	22.7 *d1	15.8	15.3
60-69	18.3	11.8 *b1	2.8	25.8 *d1	18.7	21.2
70-79	13.2	8.8 *b1	2.5	20.6 *d1	12.2	15.5
Average	*47.7*	*40.9 *b2 *c2*	*30.7*	*55.9 *d2*	*48.3*	*50.1*
Education	(%)	(%)	(%)	(%)	(%)	(%)
Junior high school or less	9.3	-	1.8	11.3	10.1	11.3
High school	43.5	20.6 *b1 *c1	39.3	44.5	45.8	40.8
Technical school	13.2	11.8	16.3	12.4	13.2	11.8
Junior college	10.1	2.9 *c1	5.2	10.5	10.7	12.9
University/Graduate school	23.2	64.7 *b1 *c1	37.1	21.0	19.5	21.7
NA	0.7	-	0.3	0.4	0.7	1.6

*b1 Significantly different at 5% level compared to "Non-Political" Twitter User.
*b2 Average significantly different at 5% level compared to "Non-Political" Twitter User.
*c1 Significantly different at 5% level compared to "Political" Face-to-Face Talker (not Twitter User)
*c2 Average significantly different at 5% level compared to "Political" Face-to-Face Talker (not Twitter User)
*d1 Significantly different at 5% level compared to "Non-Political" Face-to-Face Talker (not Twitter User)
*d2 Average significantly different at 5% level compared to "Non-Political" Face-to-Face Talker (not Twitter User)

In addition to demography, the survey included the following 28-statement question on media usage with five-point scale:

Internet	The Internet is my main source of information.
	I am confident that I can find information I want by online search.
	I often refer to information on the Internet when choosing what to buy.
	I look at online reviews before shopping.
Newspaper	I make it a habit to look through all insert ads of newspaper.
	I refer to inserts ads of newspapers when shopping.
	I like looking at newspaper ads.
	I think newspaper ads have a lot of useful information.
	I make it a habit to look at newspaper.
Direct Marketing	I often read email newsletters (e-DM) on my computer/mobile phone.
	I like applying for a prize on the Internet or by my mobile phone.
	I tend to open direct mails and read them as they come.
	I often use coupons and redeem e-points on my mobile phone, etc.
	I often read community papers and free newspapers.
Advertizing	I like looking at magazine ads.
	I think magazine ads have a lot of useful information.
	I think television ads have a lot of useful information.
	I like looking at television ads.
Television	Television is my main source of information.
	I tend to keep television turned on when I am at home.
Email/Texting	I feel like I have to reply as soon as I receive a message on my mobile phone, etc.
	I feel uneasy when I do not get a response immediately after sending a message on my mobile phone, etc.
Media Literacy	I don't know if the information on the Internet is true or false.
	I don't think all the information from mass media is always true.
	I don't trust information on the Internet.
Influence	I tend to be influenced by others around me.
	I tend to be influenced by information from television or magazine.
	I can make a decision without influenced by information from others.

By running a cluster analysis on these 28 statements, the dataset yielded six segments:

1) Internet Lover: Use the Internet as a main source of information; do not rely heavily on other media, such as newspaper, magazines, or television.
2) Traditional Media Lover: Use newspaper, television, and magazines as source of information, but not the Internet.
3) Media Distrust: Do not trust information from the media.
4) Cross-Platform All-Rounder: Like to use and consume all types of mediums.
5) Texting Lover: Expect that email and mobile texting would get replied immediately and respond to others in the same manner. Enjoys traditional media, but not much of the Internet.
6) Disconnected: Not very interested in any of the media.

Table 3.
Media Segmentation

	Total	Twitter User		Face-to-Face Talker (Not Twitter User)		e. Non-Talker
		a. "Political"	b. "Non-Political"	c. "Political"	d. "Non-Political"	
N	2,400	34	326	515	1,152	373
	(%)	(%)	(%)	(%)	(%)	(%)
Internet Lover	18.4	44.1 *c1	36.8	12.2 *d1	16.5	14.5
Traditional Media Lover	19.2	-	5.5	25.2	22.4	14.7
Media Distrust	10.3	11.8	6.1	10.5	11.5	9.9
Cross Platform All-Rounder	24.2	32.4 *c1	39.3	18.3	20.8	29.0
Texting Lover	17.4	11.8	7.4	24.7 *d1	17.6	15.8
Disconnected	10.5	-	4.9	9.1	11.1	16.1

*b1 Significantly different at 5% level compared to "Non-Political" Twitter User.

*c1 Significantly different at 5% level compared to "Political" Face-to-Face Talker (not Twitter User)

*d1 Significantly different at 5% level compared to "Non-Political" Face-to-Face Talker (not Twitter User)

Table 3 shows the distribution of the six segments in the total population, compared to Twitter User and Face-to-Face Talker. Majority of Twitter User (both "Political" and "Non-Political") is either "Internet Lover" or "Cross Platform All-Rounder." Comparing "Political" and "Non-Political" Twitter User, it shows no significant difference. Among Face-to-Face Talker (not Twitter User), the distribution of the six segments are more balanced, and "Political" Talker has significantly less "Internet Lover" and more "Texting Lover," compared to "Non-Political" Talker. Between "Political" Twitter User and "Political" Face-to-Face Talker, "Political" Twitter User has significantly more "Internet Lover" and "Cross Platform All-Rounder."

Discussion

The demography and cluster analysis have shown that "Political" Twitter User is significantly older and more educated than "Non-Political" Twitter User, but they are not significantly different in terms of media use. Majority of them are savvy Internet users or multi-media users. On the other hand, compared to "Political" Face-to-Face Talker who does not use Twitter, "Political" Twitter User is significantly younger, more educated, and more of them are savvy Internet or multi-media users. At the same time, "Political" Twitter User is older than "Non-Political" Twitter User—the average age is 40.9 years old, while the lift of the ban of online campaigning was targeted to encourage those who are in their 20's and 30's to be more engaged in voting. "Political" Twitter User is younger than "Political" Face-to-Face Talker, but not as young as the policy maker had hoped to target.

When we analyzes "Political" Tweets, we should be aware that we are listening to a particular small segment of citizens who are media-savvy, educated, and younger, compared to those who talk about politics in face-to-face daily conversations, but older than other Twitter users. Given that the online campaigning has just started in Japan, these characteristics of users may change over time. In this regard, for the time being, it might not be very reliable to use Twitter data to "predict" election outcomes in Japan.

The ban on online campaigning until the year 2013 could have made many citizens feel hesitant to discuss politics online with a fear of breaking the public election law. According to an online survey among 500 smart phone users (teen to 39 years old) conducted by LiviGen Inc. in July 2013, 49% of respondents answered that they feel "reluctant" or "somewhat reluctant" to disclose the candidates or parties of their choice on the Internet. 36% feels "reluctant" or "somewhat reluctant" even when they are anonymous on the Internet (LiviGen Inc., 2013, July 19).

Although Twitter data may not be suited for predicting the election outcome, it provides an opportunity to analyze how educated and somewhat younger, Internet savvy, multi-media users talk about politics and elections online. In order for Twitter to become more powerful platform for election analysis in Japan, it needs to have more users to discuss politics and elections online. It may require some strong public advocacy campaigns to encourage healthy discussions on elections and politics on the Internet, and subsequently a change in the culture and people's mindset. When talking about politics and elections on Twitter becomes something "cool" thing to do for Japanese youth, then Twitter will be a better tool for analysis on how young, educated, and media savvy citizens in Japan discuss and form policy issues.

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When Environmental Pollution Happens, How a Government Copes with Public Opinion: Take Guangxi Longjiang River Cadmium Pollution for Example

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Abstract

In the economic transition period of China, citizens' awareness of environment, supervision and rights is strengthening. With the rapid development of the internet technology, our public opinion in public affairs became rather complex. This article takes Guangxi Longjiang river cadmium pollution in 2012 for example, analyzing media attention and government response at different stages. The results show that government can control public opinion by releasing authoritative information and using new media, on this basis, we make recommendations on government environmental crisis management.

Keywords: public opinion; Environmental pollution ; Government crisis management

The government's response to the crisis management strategies in environmental crisis communication process

Environmental crisis communication practice, there are three implementations, one traditional forms of media attention, the second is the formation of public opinion rumors spread, three are with the government 's attention and intervention, environmental crisis spread through the government began a media monitoring speech and behavior or spontaneous monitoring implementation. Rumors spread and the government crisis management is an emerging new media environment environmental crisis communication. The rivers in Guangxi Liujiang Long cadmium pollution crisis communication event, for example, whether it is in places like Liujiang and Hechi government or from the nationwide attention, the government policy response to the crisis has its own characteristics.

The spread of the crisis will be impacted by a special time node

Cadmium contamination in Guangxi Longjiang river incident, probably due to the exposure time is very close from the 2012 Spring Festival, many government departments have a holiday, there is no time to respond to environmental crises. But with the end of the Spring Festival, government departments as well as traditional media attention to events rapidly warming.

Responses are from the central level to local level

Public opinion in the whole event starts the fermentation period, the media, the central one of the official media has continued to follow up, are mostly original news media exposed the central level, making the information public authority, the public and the government dissolves the part opposition psychology. The local government in Liuzhou government constantly press conference, to ensure information is open and unobstructed, to meet the majority of Internet users to know, in the opinion of the local government to win the initiative. Central level media and local government 's attitude, to some extent relieved the network negative public opinion, public opinion in favor of grooming and cooling.

The government's microblogs (Chinese twitter) play an active role in communicating the government and the public

Government microblog applicable particularly evident in Liuzhou government government microblog "@ I Love Liuzhou" on. Beginning from January 23, Liuzhou government launched a hydrological monitoring system, at least twice a day regimen news release, eliminating the public panic, government microblog critical period in the environmental crisis as the government and the public communication link.

In addition, a Xinhua, China News Network and other news organizations rely on updated " Latest News " , a day of information update reached three times, four times , which in the era of traditional media deal with the issue of the environmental crisis can not be achieved .

Different governments have their own characteristics in dealing with environmental crises

Comparing two municipal governments, Hechi and Liuzhou, Liuzhou government have sent 1930 microblogs, 287 microblogs mentioned 'cadmium'. Hechi City have 2334 microblogs , but there is no microblogs about 'cadmium'.

There is a very interesting phenomenon: since cadmium pollution has been exposed, Hechi official microblog stop updating, and have no relevant comments about this serious event.

Liuzhou is completely different, news agency reports that "Since the contamination incident, in a polluted river downstream Liuzhou has been the use of local newspapers and television announced the progress of events and water quality ", " local official use of the network forums, official microblog, SMS and other channels publish authoritative information to the public every two hours Liujiang water quality testing data, while inviting the media to visit the local water plant, emergency supplies reserves, and other places . " This open attitude, not only won the media recognition, but also " help (Liuzhou) to win the event for disposal initiative, is expected to establish a positive reputation and image", more importantly, also make " public Liuzhou panic to get put down."

Liuzhou timely disclosure of information would, to a certain extent, ease the media and Internet users in the " open" contradictory demands of this level. The cadmium pollution incident handling different attitude of the government to bring different results for other local governments have referential significance.

Reflections: Environmental Crisis Communication in response to public opinion under the government and the public in the Game

In the economic transition period of China, citizens' awareness of environment, supervision and rights is strengthening. With the rapid development of internet technology, our public opinion in public affairs became rather complex. Environmental crisis management, in fact, is the government and the public use the media as a link to carried out a game, so face the Internet age pattern of public opinion, the correct treatment and guide public opinion will be particularly important for the government.

Through the rivers in Guangxi Long cadmium pollution incidents observation and analysis of the Government's environmental crisis management made the following recommendations:

Emphasis on humanism, open and transparent to ensure that information

Liuzhou, Hechi City of contrast media cope with the situation, you can see the entire event in Hechi City has been slow to respond, was criticized by the media and the public until after Hechi Mayor bow and apologize, the media before leveling off. In the "Popular microphone " era, perfunctory investigation and did not elaborate conclusions, not only unable to quell public opinion, it will lead to more voices of skepticism. Thus, in response to public opinion process, the Government departments need to fully respect the media and the public, to lay down the rights of arrogance, timely apology, be people-oriented.

The active use of new media, to ensure adequate dissemination of authoritative information

In the event, Liuzhou use the microblog published regularly monitoring data for establishing a frank and positive image. Thus, the government should focus on crisis management on the new media, especially the use of micro-Bo, and timely updates digestion public anxiety, constant interaction with the users in order to ease the emotional network and information together with the traditional media, the formation of joint action.

Emphasis on public sector construction

In the new media environment, the government should pay attention to the environmental crisis management also construction of public sphere. Habermas calls the public sphere, refers to a state and society between the public spaces, citizens can assume that freedom of speech in this space, free from state interference. In layman's terms, means " political power, as a basic condition for democracy and civil liberties and political discussion of public affairs, to participate in political activity space. Meaning of the most critical public sphere is independent of the political construction of public communication outside and public opinion they have the political power is critical, but it is also the basis of political legitimacy.

Media in the public domain to create a platform for exchange of government and the public, through a variety of interest groups on the relationship between the mass media on issues of self-interest free exchange, thus affecting the political process. Constructed through the medium of text generated mimicry environment, government and the public and political life, the question be directed to reconstruct the public domain.

In Guangxi Longjiang river cadmium pollution, the spread of a step by step is reflected in the public domain government decentralization and the rise of civic rhetoric.

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Motivation of Thai Tourists' Aspects Towards Hua-Hin's Tourism

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Abstract

This research is to study the motivations of Thai tourists on traveling in Hua-Hin City, Prachuap Khiri Khan Province. The sample group is 100 Thai tourists who visited Hua-Hin, A set of questionnaire is employed to collect all the data, and the data is analyzed by descriptive statistics, including percentage, means, and standard deviation.

The results show that most of the respondents decided to visit Hua-Hin because of its variety of places, its image of tourism city, its safety, and its peaceful relaxation, which are rated in the medium level. Uniqueness of food, convenience of facilities, beauty of beaches, convenience of transportation, tourism diversity, and quiet places are rated in the high level.

In conclusion, Hua-Hin serves the Thai tourists' needs and motivates them to visit more and more by its frame and the comfort of transportation.

Keywords: Tourism, Hua Hin

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Preface

Hua-Hin is number one seaboard city which still in people heart even the time past, Hua-Hin is still top hit because Hua-Hin is oldest resort in Thailand, in the former time Hua-Hin is only fisherman village but nowadays Hua-Hin has five stars hotel, bungalows and resort which charming of Hua-Hin is attractive for tourists who visit here

Stagnation of Hua-Hin occurred after the announcement of the 1st National Economic Development Plan (1961-1966). Made roads across the country, more tourists decided to travel by their personal car moreover many new resort towns were raised such as Bang Pu resort town in Samutprakarn province, Bang-San beach and Pattaya in Chonburi province. The building of Sukhumvit road from Bangkok to Trad province so it made more people travelling to the east gulf of Thailand so is the reason of Hua-Hin more quite. The railway hotel in Hua-Hin suffered heavy loss so the private sector takes over the railway hotel and operate again, then it makes Hua-Hin and Cha-am declining reputation more than twenty years. Hua-Hin is popular again by the sense of the past also combined the history of city with a modern tourism such as Jazz Festival, Plern- Wan restaurant for mimic old-fashion life style.

But anyway, Hua-Hin still is a popular destination for both Thais and foreigners because Hua-Hin can supported long-term tourism with a lot of occurrence new tourist attractions in Hua-Hin for support many tourists who travel to Hua-Hin due to expand tourism in Hua-Hin for serve tourist who interesting and variety by creating all alternative attractive who doesn't need only the beach. Until now, Hua-Hin was chosen as a destination to visit for vacation. Hua-Hin is the oldest classic attraction beach has always popular including the convenience things, nature beach and the pure nature, with all reasons mentioned Hua-Hin nowadays tourists need for real relax.

Therefore, the study of motivation of Thai tourists' aspects towards Hua-Hin's tourism is guideline to improve the attraction tourist point view for tourist needs and also for promote tourism's Hua-Hin as well.

The question of research

1. Why the tourist favorites travelling to Hua-Hin?
2. What is the factor and concern to the tourist favorites travelling to Hua-Hin?

The objective of research

1. For study the motivation of Thai tourists for travelling to Hua-Hin.
2. For study the reasons the tourist favorites travelling to Hua-Hin.
3. For study the factor and concern to the tourist favorites travelling to Hua-Hin.

The scope of research

1. The scope for areas such as Hua-Hin beach, the front of Hua-Hin village market, the areas of Plern- Warn and the night market.
2. The scopes for sample group is 100 Thai tourist who travel to Hua-Hin

The limited of research

The budget which cannot estimate till finished the research that how much for research budget.

Keywords
Motivation, Thai tourists, Tourism, Reasons for travelling

The benefit from this research

1. Understand the motivation of Thai tourist favorites travelling to Hua-Hin.
2. Understand the reasons of tourist for travelling to Hua-Hin.
3. Understand the factors of favorites for tourist for travelling to Hua-Hin.
4. Understand any place of the tourist attraction which tourists need.

Conceptual research

The study for motivation of Thai tourists' aspects towards Hua-Hin's tourism has the conceptualize as the frame as follows.

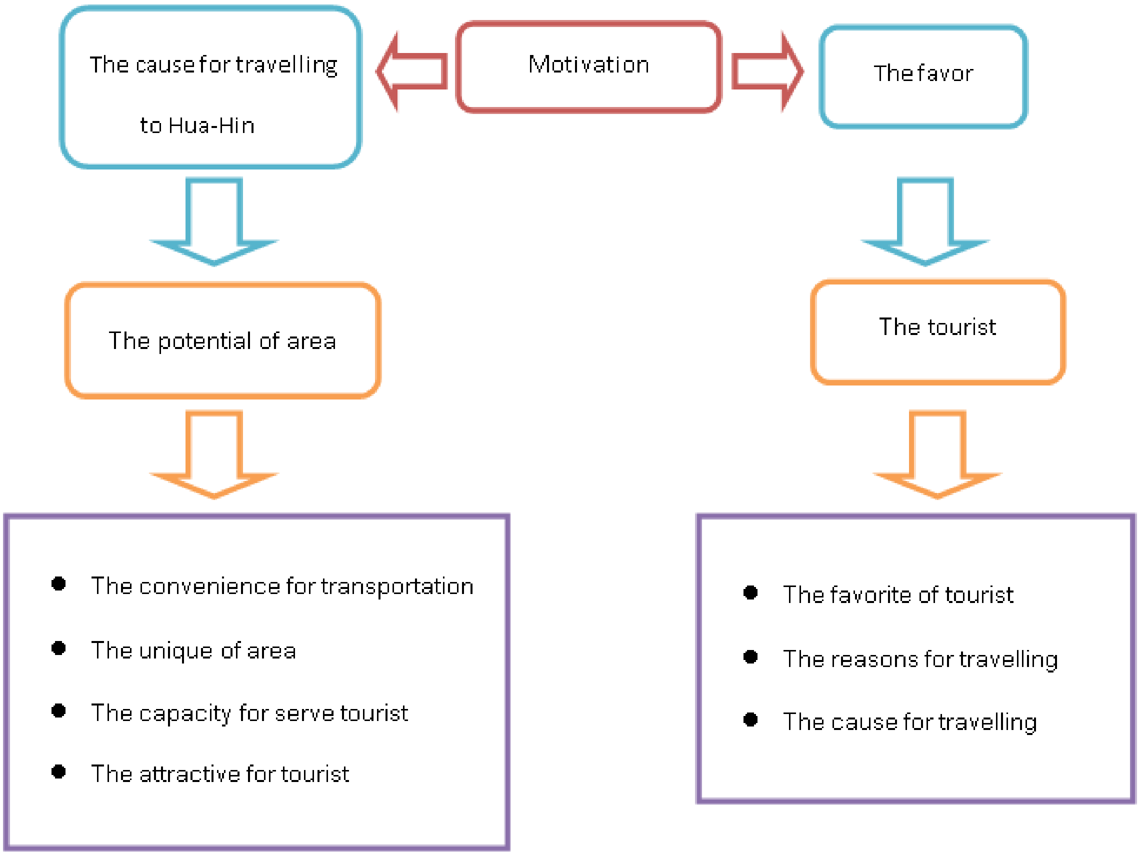

Figure 1. Frame picture Show conceptual research

From frame picture can show that it's concern to two types as the potential areas which convenience for travelling of tourists, the unique of areas more than any areas which popular and favor for tourists including the capacity for serve tourists and most of tourist attractions and the other types are the reasons and cause for travelling which two types of this mentions can solve the questions of research about the motivation of Thai tourists' aspects towards Hua-Hin's tourism.

The review literature

Tourism Meaning

WTO (World Tourism Organization) has meeting the topic of travelling and international tourism at Rome, Italy on 1963 and give the definite of tourism is travelling which concern 3 parts concerning as follows:

1. Travelling means travel by themselves and not force by somebody, planning from place to any place by travelling with vehicle nearby or long distance.
2. Destination means destination which travel for temporary then back to hometown which that places has convenience things for serve satisfy of tourist.
3. Purpose means the goals or objective for travel is not for make money or work.

International Association of Scientific Experts in Tourism give the definite for Tourism is travelling for resident from some period and no have activities for make money, and the important thing for this mentioned are as follows:

1. Tourism means travel of people from residence to any place.
2. Tourism concern to two important parts are travel to destination and stay overnight.
3. Travelling and stay overnight is not residence or workplace and the activities of travelers must different from local people.

4. Travelling to destination must go for temporary in the short term and will back within 180 days.

5. Destination which will travel must be for tourism or visiting only that is not stay for resident or for working.

Conclusion for definite of "Tourism" means travel from their resident go to any place for relaxing, joining for satisfy themselves and tourism is the important things for growth economic of country.

The factors to promote Tourism

The factor for promote and expand tourism has two parts are Enable Condition and Travel Motivation. 1 The factors for tourism is for all tourist can travel such as timing and revenue which timing is important thing cause tourist must has free time for travelling and revenue for support all the time when they travel.

2. The factors for motivate tourist travel is promotion of tourist place and program tour including the price.

Tourism Industry

Holloway (1991:13) mentioned that Tourism Industry is largest industry in the world, larger than Car Industry, Steel Industry and Consumer goods Industry. Tourism Industry feature more factors for tourist satisfy such as transportation, Lodging, food and beverage, tourist guide, tourist destination, souvenir and so on.

Act of Tourism Authority of Thailand (1999) mentioned that Tourism Industry means the industry provide service within country and outside country by pay money and including Travel Agent, Hotel Business, Restaurant Business, Souvenir Shop and also Mice Industry.

Siriorn Witchawut (1980:3) mentioned that Tourism Industry concern to many industry such as Transportation Business, Hotel and Lodging Business, Restaurant Business, Travel Agency Business which all product tourist can buy direct such as Travel Agency Business, Hotel and Lodging Business, Restaurant Business and other business deal to tourist such as food product, work of art, tradition and culture, also the ways of people's life.

Conclusion of Tourism Industry means service industry which manage by big size of business concern to many of business which service for tourist with direct and not direct, must plan, manage, evaluate and develop with plenty of budget which can mentioned that Tourism Industry is biggest industry in the world.

Tourism Concept

Definition of Tourism

Tourism means travel for relaxing, enjoying or receive the knowledge. World Tourism Organization definite that travel means travelling more than 80 kilometers from home for relax.(Admin:2009)

Lawson & Baud-Bovy 1995, refer to Boonlib and friend 2002:71-72 definite the meaning of Tourism is one of recreation which happen by the way concern to travel from one place from home to another place which tourist destination.

Mc Intosh and Goeldner 1995, refer to Boonlib and friend 2002:71-72 can conclusion that tourism means the summary of phenomenal and also the relation from tourist and service industry including the host government country & local people which the tourist attractive concern to activities of visitor.

World Tourism Organization definite travel means as follows:

1. Must travel from residence to another place for temporary.
2. Must have destinations which would like to visit and no force.
3. Must have the goals and objective for travel but no pay money for occupation at all and no more permanent stay over.

Type of tourism

The concept about Demographic characteristics

The different of physologistic of Demographic characteristics can divide as follows:

1.Sex
2. Age
3.Income or revenue
4. Education
5. Occupation

Mill and Morrison (1992, refer Kessara Kerdmongkol 2003:15-16) mentioned that Researcher about the behavior for tourism and founded that Demographic characteristics effect to tourism such as (Boonlib Panitchart and friend: 2002) as follows:

1. Sex, normally tourist male travel more than tourist female and they can travel alone or travel by group. They can go to every destination and can do varities activities for tourism. For female tourist always travel with friend or travel agency by strong decide the special tourist destination with safety, convenience transportation so tourist attractions have more female tourist or growth means that tourist attractions is safety.

2. Age, the different age can assume that the different travel as follows:

Children - age lower than 15 years can't travel alone, normally travel with parents, school or institute.

Teenage - age around 15-24 years, just studying or graduated so they aren't have money for travel, almost travel with parents, school or travel and stay with host family in exchange program in school or university, This group even has small income but if they impress when they are teenage, they will repeat tourist attractions again which make money for future tourism.

Working group at the beginning - age around 25-34 years, is the potential group for expense because they have their income and they can decide more varities activities because good health and this group travel more than another group as mentioned.

Working-age group, the middle and the end - age around 35-44 years and 45-54 years, is group for travel more than another with duty of work and responsibility. Also financial position is stable.

3. Occupation, the different occupation and the different occasion, the group of high level occupation have more travel than another group cause they have more money and responsibility of occupation must travel more especially executive management, salesman and professional groups.

Theory of satisfaction

Meaning of theory

Expectancy Theory refer to Suwan Intasit (2008:1) mentioned that Motivation = Expectancy x Valence. Means that the levels of motivation depend on their need to the thing and level of possible which they will receive from that. This theory is the important as follows:

1. Internal Factors (Needs) and External Factors (Environment) effect through the behavior personal.
2. Behavior comes from decision of people.
a. Personal are different needs and goals.
3. Personal will decide behavior depend on except from that behavior.
4. Motivation from this theory must has two parts are expectancy and valence.
   Motivation for tourism, before people travel they have motivation and want to travel, by Maslow's theory the motivation for tourism of people has 4 important as follows:
   1. Physiological Motivation is motivation for meet of need, relaxing from serious work by take vacation, visit the nature environment.
   2. Cultural Motivation is learning the knowledge of art, music and way of life.
   3. Relationship Motivation is between personal and personal, visit friend or visit another.
   4. Status Motivation is acceptance from another person when they visit tourist attraction.

Factors influencing tourism

1. Internal Factors
2. Tourism Resources
3. Security
4. Infrastructures
5. Facilities
6. Souvenirs
7. Advertising and Public Relation
8. Image
9. External Factors
10. Economic and political conditions of the world
11. Popular Tourism
12. Expansion of routes
13. Exchange of political policy

Determinants of travel

Subjective factors

1. Needs, wants and motivation
   1.1 Needs is necessary of customer which made appreciate for long successful of
2. business. How to make customers aware of the needs of their own is motivation which motive customer to appreciate their needs.
3. Perception
   3.1 Processes of perception are as follows:
   3.2 Open the deliberately chosen information
   3.3 The information has been deliberately chosen
   3.4 Understanding and interpretation of the data
   3.5 Data storage needs
4. Learning
5. Personality
6. Life Style
7. Self-concept
8. Attitudes
9. Serious of work Factor
10. Income Factor
11. Factor of Timing, Situation and Healthy
12. Family Factor

Summary and discussion of results.

In the study Thai tourists' aspect affecting tourism in Hua-Hin. The results can be summarized as follows.

<u>Part 1 information about tourists.</u>

1. Classified by gender age, occupation status.

The study found that most visitors are female than male. Aged 12 to 22 years old Single Social Status. Because mostly are students.

2. Information about the trip.

The study found that most tourists traveling on their own rather than buying tours. In recent years, tourists traveling to Hua-Hin average six times the average duration traveling Hua-Hin each time is 2 days and the number of passengers traveling on average in each of 5 people.

<u>Part 2 Travel and stay overnight.</u>

In the survey found the most of visitor travel by car than travel by train or bus. The reason for visit Hua-Hin is for relax or shopping than visit for honeymoon and seminars. And the survey found the most of tourists will come back again for 1 month and will come back again within 2-3 month. The most popular attractions is travel to nature sources including sea, Takiab mountain, Pha-ra-u waterfall, Pranburi Park. When tourist travel to Hua-Hin the most of tourist like to stay overnight in hotel.

Part 3 information is important in deciding choose attractions.

1. Data source Traveler use travel planning.

The study found that important information that contributes to the traveler's decision is a friend and relatives.

2. Level of comments.

The study found that the reason for the traveling to Hua-Hin is convenience for travel. The average level of satisfaction at the highest level. In addition, is a matter of attractiveness of attractions. A variety of attractions can satisfy the needs of tourist. And the facilities, these factors are attraction for tourists traveling to Hua- Hin.

In terms of appearance to affect tourism, in this survey is divided into three parts, part 1. Experience, that is unique of food, the attractive and comfortable, and the satisfaction levels to a considerable extent. But in the meantime, the issue of security of life and property, the satisfaction level is the middle. Part 2. Attractions, In addition to food another attractive of Hua-Hin are the famous place for tourism, the level of satisfaction is high resulted from the convenience of travel and tourism diversity. Part 3. Relaxation / relaxing in the research found that tourists cannot get away from Hua-Hin when they visit this place but it still has been popular for tourists.

The Effect of an integrated program of culturally appropriate health promotion for toddlers and social services on cognitive, attitudes and psychomotor performance among nursing students in Banpong Ratchaburi, Thailand

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Abstract

Cognitive, attitudes and psychomotor performance are significance for nursing students. Developing these competences require learning both in classroom and in the real life situation. Therefore, the researchers develop an integrated program which incorporates culturally appropriate health promotion for toddlers aiming to improve knowledge, attitudes and psychomotor skills of nursing students in terms of developmental psychology, nursing care, and local wisdom reservation.

Purposes

This study aims to examine the effect of an integrated program of culturally appropriate health promotion for toddlers and social services in terms of knowledge, attitudes ad psychomotor skills of nursing students.

Method

Design: a quasi experimental research: one group pre test and post test design was used.

Sample: 72 first year- nursing students from Boromarajonani College of Nursing, Chakriraj, who registered in the health promotion unit, were recruited into the study.

Instruments: There were two types of instruments: intervention program and instrumental tools.

Intervention program is “an integrated program of culturally appropriate health promotion for toddlers and social services”, comprised three sessions: lecturing about children developmental assessment, developmental promotion, nutrition, and vaccination in class plus giving assignment for students to create toys or instruments based on Thai local wisdom. The second session included learning theory plus checking health promotion program based on the assignment. The third session is implementing health promotion program in real-life situation.

Instrumental tools: there were three main instrumental tools for this study: examination test, self rated questionnaires on benefits and impact of this program and guidelines for interviewing in the focus group.

Data collection: All participants were tested at pre test and then the health promotion campaign was implement later the examination at post test, questionnaires and focus group were used.

Data Analyses: the descriptive analyses such as frequency, percentages, means and SD were tested.

Results

Most students improve their posttest scores and they advised benefits of this program over over risk of this program.

Conclusion and recommendation

All participants can improve their knowledge, attitudes, and psychomotor skills and recommendations for the education is changing nursing curriculum and developed this similar program for nursing students in the future.

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Background

Health promotion and illness prevention for toddler are significant topics for preparing nursing students. These health promotion and prevention comprised growth and developmental assessment, vaccination, nutritional support and common disease prevention, referring to the higher level of health care system. All these activities aim not only to improve the children physical and psychological health but also to raise awareness of health promotion and nurture good behaviors for toddler are also fulfilled.

However, enhancing nursing students who will be health professionals in the future requires cognitive, attitude, and psychomotor preparation. For the attitudes and psychomotor preparation, an appropriate way to prepare students are providing knowledge in classroom and implement to the real life activities. Furthermore, social service or community engagement and strengthening Thai culture are two significant missions for educational institute. Therefore, an integrated program between social service and health promotion for toddler using Thai traditional local wisdom was implemented.

Purposes of the study

This study aims to examine the effect of an integrated program of culturally appropriate health promotion for toddlers and social services in terms of knowledge, attitudes ad psychomotor skills improvement of nursing students in Banpong district, Ratchaburi province, Thailand.

Hypothesis

After finishing the integrated program of culturally appropriate health promotion for toddlers and social services, nursing competence scores including knowledge, attitudes and psychomotor competences on health promotion for toddlers at post test is better than the scores at pretest significantly.

Method

Design:

A quasi experimental research: one group pre test and post test design was used in this study.

Population:

72 first year- nursing students from Boromarajonani College of Nursing, Chakriraj, who registered in the health promotion unit, were recruited into the study.

The Intervention program

The intervention program in this study is "an integrated program of culturally appropriate health promotion for toddlers and social services", comprised three sessions: lecturing about children developmental assessment, developmental promotion, nutrition, and vaccination in class plus giving assignment for students to create toys or instruments based on Thai local wisdom. The second session included learning theory plus checking health promotion program based on the assignment. The third session is implementing health promotion program in real-life situation during working on the project.

Considering the intervention program, lesson plans for chapter 4, titled as holistic approach, humanized health care on health promotion and disease prevention of children, were developed.

Content validity of intervention

This intervention program, in particularly, lesson plan were developed basing on humanized health care for children and adolescences. The content validity of these lesson plans was tested by three experts who are specialists in nursing education and nursing care to check the contact validity, completeness of contents and appropriate language used for toddlers. When all three experts gave comments and suggestion, the researcher adjusted and refined the intervention program based on the comments.

Then the researcher took this refined intervention program to do the pilot testing with the nursing students in the 2nd year students for 30 students. The pilot testing aims to test the appropriateness of activities, period of time for activities before applying this into the study.

Instrumental tools

There were three main instrumental tools for this study: examination test, self rated questionnaires on benefits and impact of this program and guidelines for interviewing in the focus group.

First, examination test, regarding "health promotion and illness prevention based on holistic, humanized health care approach for children and adolescents", included 10 questions. Content validity was tested by 3 experts, specializing in pedriatric nursing. The questions were tested the reliability with 30 participants, the 2nd year students of Boromarajonani College of Nursing, Chakriraj. The internal consistency of this examination test was tested by Kuder-Richardson formula 20 (KR-20). The KR -20 equates to 0.60.

Second, the self rated questionnaire on benefits and impact of this intervention program included 20 items. Content validity was tested by 3 experts, specializing in pediatric nursing. The questions were tested the reliability with 30 participants, the 2nd year students of Boromarajonani College of Nursing, Chakriraj. The internal consistency of this examination test was tested by Kuder-Richardson formula 20 (KR-20). The KR -20 equates to 0.85.

Third, semi structured guidelines for interviewing in the focus group for all students included knowledge gained, benefits and their competences. Content validity was tested by 3 experts, specializing in pediatric nursing, in terms of correctness, ordering of interview and languages. Then the researchers adjusted and refined questions based on the experts' suggestion.

Data collection

There were four main steps of data collection.

First, all participants were tested, using examination test, regarding "health promotion and illness prevention based on holistic, humanized health care approach for children and adolescents" before studying in class about health promotion and illness prevention.

Second, the intervention program, including explaining purposes and teaching knowledge and information in class and then working on the project about health promotion and disease prevention for children and adolescents.

Third, the health promotion campaign, a project which was the created by students, was implemented at a children care center in Banpong Ratchaburi.

Fourth, the examination at post test, questionnaires and focus group were applied with students.

Data Analyses

Thee descriptive analyses such as frequency, percentages, means were used for the examination test. Furthermore, the content analyses were used for the data from focus group.

Results

The main results of this study can be divided into three aspects: Personal characteristics, examination test, result from the focus group.

First, most participants were female (93.06%) and only 6.94% were male.

Second, benefits and impact of this intervention program based on the self rated questionnaire most participants reported that the moral and ethics aspect were significant improved and the highest average benefits scores were respecting on human right (M=4.13), Improving on the responsibility (M= 4.12) and volunteering or service mind (M=4.12). Furthermore, the second aspect of improvement was systemic thinking competence (M=4.10). Then the patient right and patient participation and communication or transfer information to others were improved (M= 4.03).

Table 1.
showing the average learning outcomes of students.

Items	learning outcomes of students	mean
	Moral and ethics skills	
1	respect the value and dignity of the human	4.13
2	were responsible for their own actions	4.13
3	psychiatric services	4.12
	Knowledge skills	
1	Knowledge and understanding of the essence of the science of nursing health systems and the factors that affect the change of social and health systems	4.03
2	knowledge and understanding of the culture. Changing circumstances of the country. And the world has an impact on health and the public	4.01
	Cognitive Skills	
1	can bring an evidence to be used in a reference. And resolve critically.	3.94
2	can be thought of as a system analyst . Using knowledge and relevant professional experience , including use as a base . To achieve safe and high –quality	4.10
3	A critical thinking	3.99
	Interpersonal and responsibility skills	
1	can Adapt and interact well with colleagues and bosses	4.00
2	can work as a team member and team leader roles . In the nursing team and health teams in community health systems in the context or situation is different	3.82
3	to show that leadership to take part in a great change in the situation	3.84
4	taking into account the rights of the patient and the patient's part	4.03
	Numerical analysis communication and Information Technology skills	
1	to convert data into information quality. Including the ability to read, analyze, and communicate information	4.03

Third, qualitative data from the focus group were reported and analysis for the lesson learned. The main benefits of this intervention program were knowledge gaining about health promotion and prevention for children and adolescent so that they have confident to provide care 'I have got knowledge about health promotion, so I am confident to care for the child patients' said ST1 and an implementation part in the real life situation could help the students to understand clearly about the information in the class as the ST2 mentioned that 'I can't understand all knowledge in class but when I have worked with the children during implementation, it makes me more understandable'.

Fourth, most participants had improved their scores at posttest, comparing to at pretest (76.39%). They advised benefits of this program over risk of this program.

Discussion

There were successfully improved of knowledge, attitudes and psychomotor performance of nursing students after joining the integrated program of culturally appropriate health promotion for toddlers and social services on cognitive, attitudes and psychomotor performance in Banpong Ratchaburi. Most students agreed that the intervention program provide benefits in terms of knowledge, attitudes and psychomotor or skills through the activities in the program. The result of this study is congruent to previous study that mentioned that teaching and learning process are not only one way transferring knowledge from teachers to students, but students requires to select, to absorb, balance and synthesize knowledge themselves. Therefore, at the undergraduate study, both teachers and students need to adapt themselves because the period of learning in class is so short and quick. Most knowledge can be learned through advanced technology (Trakulsarit, 2002). As a result, teachers requires to improve their teaching process by preparing themselves for the dynamic changes which related to student's roles. The student center approach should be applied instead of teacher centered approach. The process to encourage teacher to change their roles requires continuously improved or trained. (Office of the Education Council, 2007). In particular, teachers need to know a variety of learning method aiming to improve student's competecnce, paying attention on the improvement and goal of the study. Project based learning is one of the student centered approach which may help students about their critical thinking, synthesizing, and self directed learning skills in the future. These methods may enhance lifelong learning (Makkasamun, 2003).

Conclusion and recommendation

All participants can improve their knowledge, attitudes, and psychomotor skills and recommendations for the education is changing nursing curriculum and developed this similar program for nursing students in the future. For the further study, a longitudinal study such as follow up phase after finishing program about 6-12 months are required.

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The Retirement Preparation of the Staff at the Signal Department, Royal Thai Army

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Abstract

This research aims 1) to study differences of retirement preparation of government officials in Signal Department Royal Thai Army 2) to compare differences between personal factors and retirement preparation of government officials in Signal Department Royal Thai Army on financial, habitation, physical health, mental health and time management 3) to compare the level of significance for retirement preparation of those. The questionnaires used in this research were distributed 281 government officials in Signal Department Royal Thai Army. The sample population was asked to self-report via filling out the questionnaire. The answers were then analyzed by using frequencies, percentage, mode, mean, standard deviation, T-test, F-test and One-way ANOVA.

These research findings are

1. In the whole picture, those government officials have a mean of the retirement preparation in the high value.
2. The differences in term of age, married status, education level, rank, monthly income, budget in savings per month, average expenditure per month have an impact on differentiation for the retirement preparation plan with the significant at 0.05, while the different of gender, married do not have an impact of differentiation for the retirement preparation plan.
3. The government officials in Signal Department Royal Thai Army, they have to prepare retirement preparation plan as follows financial and habitation in the high value, while the physical health, mental health and time management in the medium value.

Keywords: retirement preparation, government officials, retired

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Introduction

Current world population has increased continuously from 6,070 million in 2000 to 7,851.4 million in the next 25 years; the structure of the world population is changing. In Thailand the elderly population (aged 60 years or more) accounted for an increase in the rate of 10 percent in 2000 to 15.0 percent in 2025, while the population of children (aged 0-14 years) decreased from 30.1 % to 24 %. Thailand structure of the population will change from the young population with an aging society in the near future. (The National Statistics Office of Thailand 2000)

However, prepare to enter this situation. What is happening in other countries in the world? European countries are particularly planning and scheduling policies to focus on the elderly population. The elected members of parliament will have a policy on the elderly as an important issue in the campaign. National economic and social development plans of Thailand are also getting a law that protects the elderly directly. Elderly Act 2003, which came into force on 1 January 2004. (How the world change 2013)

Preparing for retirement is considered thinking and preparing is a various process that should begin in middle age because it is a continuous process and to gradually familiar with the idea of retirement. Including the time to plan your life carefully preparing for retirement can be helpful in reducing the problem of retirement, adapt to role of changes and satisfaction in retirement. Consistent with the literature and research that found that preparing for retirement is an important means to help the elderly living in retirement can be shared with the family, community, dignity and quality of life. And reduce the burden of the family and the state must pay the costs of caring for the elderly. This prevents problems that caused by aging society effectively. The government is aware of this fact. The sequence of strategy to prepare for aging populations in the quality of the Elders of No. 2 (2002-2021), the important measure is to promote the collateral to old age. (How the world change 2013)

For information in preparing for retirement, researchers are interested in studying retirement preparation of government officials in Signal Department Royal Thai Army. The results of this study will lead to the creation of a format to prepare for retirement. This can be extended to the private sector employment in general. Including the basis for the planning of activities related to preparing for retirement to meet the needs.

The purpose of research

1) To studied the retirement preparation of government officials in Signal Department Royal Thai Army.

2) To compared the differentiation between personal factors and retirement preparation of government officials in Signal Department Royal Thai Army about financial, habitation, physical health, mental health and time management

3) To compared the level of significance for retirement preparation of those.

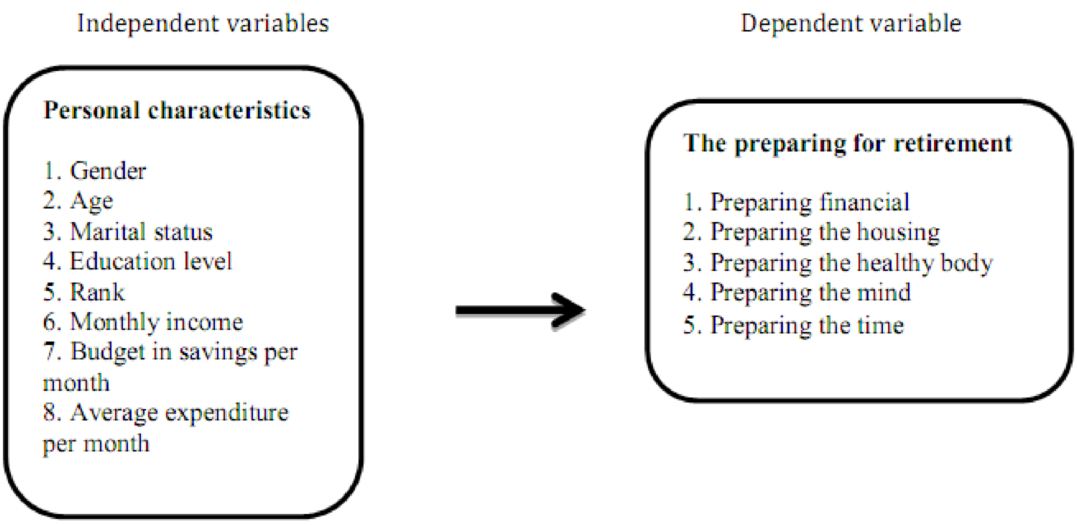

Figure 1. Research conceptual framework

Scope of the studied

This research was study to prepared for the retirement of government officials, Signal Department Royal Thai Army. The survey sample group from army officials, with perform duties within the Signal Department Royal Thai Army for a period from July 1, 2013 to October 31, 2013.

Expected Benefits to be received

1. Army officials and employees in the private sector were aware of the need to prepare before retirement. And start planning for life after retirement, valuable and good quality of life.

2. The studied of preparation before retirement can used as a guide to prepare the general public retirement employment in the private sector.

3. The results of this study were the basis and guidelines for agencies (private) and government agencies to support planning and programming activities.

4. Purposes and guidelines for those who want to be involved in research in the future.

How to do research

Population in this study was that government officials at the Signal Department Royal Thai Army, a Thai nationality including the military draft and Non-Thai nationals Employees, store operators employees within the Signal Department Royal Thai Army, both Thai nationals in Bangkok and foreigners were 950 people The researcher used a sample size of 281 people by simple random sampling method estimated sample size with 95% confidence.

The variables studied

Variable that the researcher was interested in two variables: the independent variable was the personal variable. Dependent variable was too prepared for retirement.

The tools used in the studied

Questionnaire divided into two parts, namely.

1. Questions about the personal characteristics of the government officials, age, marital status, education level, monthly income, budget in savings per month, average expenditure per month.

2. Questions about the preparedness before the retirement of government officials, Signal Department Royal Thai Army.

Results Summary

Section 1 Analysis characteristics of respondents

Personal characteristic of the 281 respondents of government officials at the Signal Department Royal Thai Army is male with the percentage of 86.5. The largest age group is between 20-30 years with the percentage of 46.6. According to the results 40.6% had a high school graduate and 39.6% are class rank under commission. The highest monthly income level is between 10,001-20,000 baht per month with 49.1%

Section 2 Analyze the preparation prior to retirement

Most samples are required to prepare the financial statements in the most with the mean was 4.53 and preparation of the law on inheritance, real estate property, preparing knew about investing in businesses to increase revenue such as investment in the stock market. Investment in government bonds, knowledge about career backup level decisions at a high level.

Table 1.
Result of preparing the respondents selected in the most levels and average is 4.53

reparing financial	Total		
	$\bar{X}$	S.D.	Level of significance
1. Learn to allocate the money for live after retirement without trouble.	4.66	0.630	The most
2. Study on preparation of the law on inheritance, property, and real estate.	4.37	0.717	Much
3. Preparing about investing in businesses to increase revenue, such as investment in government bonds. Knowledge about career backup etc.	4.43	0.673	Much
4. Preparing in various formats such as buying a house or land, bank deposit.	4.88	0.495	The most
5. Plan to release the debt before retirement.	4.97	3.042	The most
6. Planning on budget-revenue expenditure after retirement in advance.	4.75	0.587	The most
7. Agree no financial planning for retirement.	4.72	0.635	The most
8. Will be confident. If you have the money for after retirement.	4.59	0.774	The most
9. Will disagree, If you are borrowing for education of children/yourself?	3.81	1.507	The most
10. Focus on a savings to pay for children / yourselves.	4.61	0.679	The most
11. Planning expenses per month in advance is necessary.	4.6	0.670	The most
12. Recorded revenue - expenditure of the family are essential.	3.93	2.045	Much
13. Consider expenses are increasing before deciding to buy a car.	4.58	0.677	The most
14. Consider about Payment before you buy a car as well.	4.54	0.670	The most
15. Focus on the cost increase after the decision to buy a house.	4.48	0.737	The most
16. When deciding to buy a house. Essential to saving more than one year.	4.60	0.663	The most
17. Savings by making insurance is not wasteful.	4.51	0.789	The most
18. After retirement. You don't need activity for income.	4.55	0.675	The most
Total	4.53	0.8932	The most

Table 2.
Result of preparing the housing the respondents selected in the most levels and average is 4.53

Preparing the housing	Total		
	$\bar{X}$	S.D.	Level of significance
1. Planning to have home to live after retirement.	4.59	0.610	The most
2. Planning your home environment to suit the age of the elderly, such as the bedroom on the ground floor. Flooring material does not slide.	4.61	0.629	The most
3. Study on preparation and knowledge about the environment of the community to live after retirement.	4.63	0.572	The most
4. Study on preparation and knowledge about old people and welfare premises of both the public and private sectors, such as service, expenses.	4.38	0.864	Much
5. Plan for the individual to live with after retirement.	4.46	0.615	The most
6. Focus on the cost increase after the decision to buy a house.	4.51	0.655	The most
7. Planning to do for a good relationship to be with family.	4.54	0.643	The most
Total	4.53	0.6554	The most

Table 3.
Result of preparing the healthy body the respondents selected in the much levels and average is 4.32

Preparing the healthy body	Total		
	$\bar{X}$	S.D.	Level of significance
1. Learn to understand the changes in the body such as the elderly and the proper health care in old age.	4.56	0.601	The most
2. Attend the annual health check.	4.14	0.868	Much
3. Exercise regularly.	4.08	0.883	Much
4. The medical bills are backed for sickness makes you don't worry.	4.44	0.710	Much
5. Not necessary to require medical expenses in case of serious, because It is difficult to occur.	4.07	1.210	Much
6. Choose a good food for older age.	4.50	0.737	The most
7. Needs enough to sleep each day.	4.31	0.746	Much
8. When you have health problems, you going to the hospital.	4.44	0.669	Much
Total	4.32	0.803	Much

Table 4.
Result of preparing the mind the respondents selected in the much levels and average is 4.36

Preparing the mind	Total		
	$\bar{X}$	S.D.	Level of significance
1. Learn about changes in the body, mind, and society of the elderly to prepare when retirement.	4.46	0.637	Much
2. Study on preparation and knowledge about mental health treatment.	4.17	0.740	Much
3. Religious education to train the mind for prepare after the retirement.	4.32	0.736	Much
4. After retirements, the role in society, including tolerance, respect from others will be less.	4.31	0.755	Much
5. Train your mind to have a calm mind, such as charity.	4.40	0.735	Much
6. Talk with friends about retirement.	4.42	0.687	Much
Total	4.35	0.715	Much

Table 5.
Result of preparing the time the respondents selected in the much levels and average is 4.41

Preparing the time	Total		
	$\bar{X}$	S.D.	Level of significance
1. Plan your free time after retirement to suit your physical condition and economic.	4.48	0.610	Much
2. Study on preparation and knowledge about the hobby for retirement.	4.42	0.672	Much
3. Do hobbies after retirement.	4.43	0.663	Much
4. Preparing for the knowledge about activities that are interesting.	4.29	0.774	Much
5. Plan to attend in activities that are beneficial to society when retirement.	4.37	0.721	Much
6. Attend events before retirement.	4.49	0.644	Much
Total	4.41	0.6806	Much

Preparing financial and preparing the housing mean was 4.53, which is considered the most important. The second is preparing the time with mean 4.41 level is very important, preparing the mind with mean 4.35, preparing the healthy body with mean 4.32 significance level, respectively.

Section 3 Results of Inferential data analysis

Data analysis to test the hypothesis Personal characteristics of government officials Signal Department Royal Thai Army in related to the preparation for the retirement of government officials Signal Department Royal Thai Army.

Table 6.
Result of hypothesis testing

Hypothesis	Supported	Rejected
Genders have relating to the retirement preparation.	X	
Age have relating to the retirement preparation.		X
Marital statuses have relating to the retirement preparation.	X	
Education levels have relating to the retirement preparation.		X
Class ranks have relating to the retirement preparation.		X
Monthly incomes have relating to the retirement preparation.		X
Budget in savings per month has relating to the retirement preparation.		X
Average expenditure per month has relating to the retirement preparation.		X

Discussion

Retirement is a condition in which a person withdraws from the routine that is set by the organization. Generally, this condition is reached when a person aged about 55-70 years. Because the Thailand limit of the elderly person is at age 60 years by the general assembly. Preparing for retirement is very important because planning for life after retirement with quality is not an easy coming. Individuals considering of their own and environmental, physical and social health, including mental health, take place of residence. New Urbanism and financial status changes (Matiya Korsanan 2009), so that the process is ongoing to prevent a crisis in the last moments of life.

The retirement preparation of Signal Royal Thai Army staff is to compare the differences between the factors. Demography Department of Signal Royal Thai Army compares between the differences of the factors. Respondents focus on preparing financial and preparing the housing at first priority. Even government officials have a system of saving for retirement or the Government Pension Fund, but they're considering it's not to meet the needs of the respondent.

Financial goals may determine the period between the time and financial goals, short-term financial goals that is not more than one year, and long-term financial goals are more than one to five years. The goal is that people want in 5-20 years ahead is needed to take a long time to accumulate money in order to achieve a goal, an expense to use after retirement want more money because in the future a conditions and events may vary, such as economic conditions, changes in the person's own being.

Preparing retirement plan is considered as a part people life. The goal is to be successful and happy in life. (Tayanat Chuanchaisitt and Teams 2012) The three periods of the life are young, adulthood and old age. The age range is the golden era of life if with a well prepare planning and concisely. Planning for retirement is very important as planned to study in childhood, planning a career in adulthood. So if it is well prepared to fulfill the objectives set before retiring definitively.

Suggestions from the research in the future

1. There should be more studies on characteristics of the population change in the future. The result of preparation of retirement may have the various changes.

2. A study of the samples in another occupation of preparing for the retirement may be the various aspects of the population.

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Satisfaction Towards Taking Virtual Exam via Mobile Phone of Nursing Students at Boromarajonani College of Nursing Chainat.

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Abstract

The purposes of this study are to develop a virtual exam through mobile phones and find out satisfaction among nursing students. The exam tests knowledge uses the mobile phone network. The research tool is test virtual using mobile phone network with eight nursing courses in order to prepare a professional nursing license exam. Queries about the performance of mobile applications, virtual test the standard 80/80 and a questionnaire about their satisfaction in the knowledge test using test mobile virtual network. The sample used in this study is the 4th year Bachelor of Nursing College.

The results showed that Development of virtual mobile device performance test 81.4 / 83.2, which is higher than the 80/80 and students' satisfaction in the knowledge test questions using the telephone network have average satisfaction was 4.65 of Mean score and standard deviation is equal to 0.43.

Keyword: Virtual exam, Mobile learning, Nursing education

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Introduction

Information Technology has been rapidly developed and plays significant roles in many circumstances not only in economy, industry, social management, public health, environment but also education. As a major factor, Information Technology could be seen as a machine, which receive data on order to process and display results as quickly as possible. In order to run data processing smoothly, other elements; for example, operation programs, instruction programs and management persons or professional who could determine and set the process to achieve the goals would be needed to count into the process.

The use of Information Technology to the study has been in operation since the National Economic and Social Development Plan No. 4 (BE 2520 – 2524). Affiliated Praboromrajchanok Institue has seen the importance of Information Technology both in terms of teaching a course in Information Technology and computer and telecommunication. Meanwhile, computer programs are applied in administrative duties especially in student registration. The National Education Development Plan No. 8 (BE 2540 - 2544) recognizes the importance of Information Technology to the educational development of the nation. The plan has 9 main pillars where the ninth is aiming to develop the information system for educational management. Moreover, the plan would encourage the educational agencies and relevant agencies to support the development of information system. The idea is in order to increase the efficiency of data storage, services and exchange data and information to be used in policy formulation. Together with, planning education, education administration and educational systems would likely to be with the same base model and standard set. Including promoting the use of Information Technology for teaching in all level of education.

Boromarajonani College of Nursing Chainat, affiliated Praboromrajchanok Institute, bends on developing a test of Nursing Council in order to pass quality of education criteria assessment. As a result, the virtual examination towards mobile phone networks is implemented.

Research Objectives

1. To develop a virtual exam through mobile networks.
2. To assess student satisfaction after the virtual test through mobile networks

Research Scopes

This research is to create and find out the effectiveness of virtual mobile phone network in order to prepare professional nursing license examination. The population of the study is 64 persons of the 4th year students of Boromarajonani College of Nursing Chainat.

Population and Samples

1. Population is samples by selecting 64 persons of 4^{th} year students of academic year 2556.
2. Variables to study the effectiveness of tests for mobile virtual network for preparing a professional license exam are following:
   2.1 Independent variable is virtual test through the mobile phone network to prepare professional license exams.
   2.2 Dependent variable is satisfaction of the students who using the test virtual phone network in preparation for professional licensing exams.

Research Methodology

This research is to build and test the satisfaction of the mobile virtual network in order to prepare professional license exam. Virtual test by using mobile network and template assessing the samples' satisfaction are created. Data collection from samples is then conducted and the final process is to analyze and interpret information to conclude and summarize report for further researches.

Basic statistics

1. Arithmetic Mean (X)
2. Standard Deviation (S.D)

Content of the lesson

Content	Unit (course)	Program
1. Comprehensive test 1.1Community Health Nursing and Primary Medical Care 1.2 Pediatric and Adolescent Nursing 1.3 Adult Nursing 1.4 Geriatric Nursing 1.5 Psychiatric Nursing 1.6 Maternal-child and Neonatal Nursing 1.7 Nursing Professional Law	6	Hot potatoes
Total	6	

Research Result, Review and Conclusion

Test results showed that virtual mobile network to prepare professional license exam could reach the satisfactory level in a good rate with average satisfaction is 4.65 and standard deviation equals to 0.45. The results are in the line with standard set.

Table 1.
The average satisfaction of the students passed the test virtual mobile network in preparation for professional license exam.

Question	N = 64		Level of Satisfaction
1. Tests using a virtual mobile phone network to prepare professional license exam make students understand the content better	4.51	0.48	Satisfied
2. Tests using a virtual mobile phone network to prepare professional license exam enable students to review the lesson at any time	4.75	0.4	Most Satisfied
3. Tests using a virtual mobile phone network to prepare professional license exam make students aware of their progress as well as achievements.	4.60	0.32	Most Satisfied
4. Tests using a virtual mobile phone network to prepare professional license exam stimulate students' interest in the lesson more	4.67	0.58	Most Satisfied
5. Tests using a virtual mobile phone network to prepare professional license exam save time to read books	4.57	0.48	Most Satisfied
6. Tests using a virtual mobile phone network to prepare professional license exam cover all contents of lessons	4.80	0.32	Most Satisfaction
Total	4.65	0.43	Most Satisfaction

Assessment of students' satisfaction with using virtual exam through mobile phone network found that satisfaction has the highest average is the test virtual mobile network covering all contents with 4.80 Mean score. The lowest average is tests using a virtual mobile phone network to prepare professional license exam make students understand the content better with 4.51 of Mean score. The total average is 4.65 and standard deviation is equal to 0.43.

Conclusion

After the researcher has developed a virtual exam through mobile networks to prepare professional license exam. The researchers then brought those lessons to try to apply with the group of sample as required. The summaries of findings are the following:

1. Examination virtual mobile network to prepare professional license exam.

Researchers have created the test through mobile phone network with 8 nursing courses. By doing this, the test would be applied to use with Windows phone, iOS, Android that can use the Internet and wireless networks.

2. A result of an analysis of learner satisfaction with using virtual exam through mobile phone network in preparation for a professional license exam is in the most satisfactory level, which is equivalent to 4.65 mean scores.

The results of the research can be concluded that the virtual test by using mobile phone network is efficient and meet the most satisfaction of the sample according to the test's result. Therefore, the virtual test through mobile phone network can be used to prepare the professional nursing license examination.

Acknowledgment

The authors would like to thank to Boromarajonani College of Nursing Chainat and Praboromarajchanok Institute for their helpful supports in order to get the work done well.

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Satisfaction Towards Mobile Learning Lesson on Digestive System of the First Year Nursing Students in the Anatomy and Physiology 2 Class at Boromarjonani College of Nursing Chainat

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Oranoot Nunla-ong [2]

Abstract

The purposes of this study were to Satisfaction Towards Mobile Learning Lesson on Digestive System of the First Year Nursing Students in the Anatomy and Physiology 2 Class at Boromarjonani College of Nursing Chainat. Its effectiveness was also evaluated using students' academic achievement and satisfaction towards the developed lesson. Subjects were 24 first-year nursing students who enrolled in the subject of anatomy and physiology 2, 2011. It was found that the efficiency of the developed lesson was 80.3/82.1, which was higher than the set criteria of 80/80. In addition, the students were satisfied with the developed lesson at a high level (X = 4.36, SD = 0.56).

Keywords: Anatomy, Mobile learning, Nursing education

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Introduction

According to Bachelor of Nursing Science Program BE 2552 (Specific course: Basic Professional), the subject of anatomy and physiology 2 focuses on teaching and learning in both theory and practice. Teaching in this course requires students to study contents of subject in order to have good understanding; therefore, student could have the basis to be used in further experiments. This course has lots of in-depth contents together with having learning by doing which spend most time in practicing so that students could apply knowledge and understanding to other classes. Moreover, students need to be closely monitored and supervised by instructors. Thus, teaching anatomy and physiology courses, instructors cannot teach in-depth in each unit due to time constraint. Hence, instructors aim to teach concisely and adequately. The in-depth knowledge of theory, students need to research some information themselves to obtain the knowledge required by the course objectives. For this reason, knowledge of learning outside the classroom such as school libraries, documentation, manuals or websites are very much needed.

To increase the efficiency of education outside classrooms and enhance learning opportunity for students, researchers have realized the importance of classroom with using computer technology to lead in teaching and learning processes through Internet network. For this reason, m-Learning has been created by operating via Internet on mobile phones. The subject of anatomy and physiology 2 could be studied by using programs, which are implemented to assist student studying. Moodle and MLE-learning are the freeware software with type of LMS, which have been managed toward websites, and they would be uploaded on http://tinyurl.com/cmlearn. Students would use this channel to be self-study lessons to improve the academic achievement. In addition, the programs are likely to be example-learning materials of the development of the profession on media. The research also contributes to new knowledge which is useful for further teaching styles. This could lead to effectiveness in learning and teaching processes and bring worthwhile to educational instructions of nursing institutions in form of learning through mobile phone networking in the future.

Research Objectives

1. To develop a lesson in gastrointestinal study of the subject of anatomy and physiology 2 towards mobile phone networking.
2. To research in effectiveness of anatomy and physiology 2 study by using mobile phone networking.
3. To find out satisfaction of the lessons learned from the development.

Research Scopes

1. Research is to develop a tool for education by focusing on learning via students' mobile phones. Researchers selected the gastrointestinal study from the subject of anatomy and physiology 2 following the Bachelor of Nursing Science Program BE 2552 in Boromarjonani College of Nursing Chainat. The contents are following:
    1.1 Alimentary Tract
    1.2 Digestive organs
2. Query satisfaction in learning through mobile phones in the topic of gastrointestinal in the subject of anatomy and physiology 2.

Population and Samples

1. Population is first year nursing students at Boromarjonani College of Nursing Chainat who enroll in the academic year 3/2555
2. 25 Sample sizes selected from the first year nursing students at Boromarjonani College of Nursing Chainat who register the subject of anatomy and physiology 2 and only those who have mobile phone that can access the Internet and get wireless signal. (Purposive Sampling)
3. Variables to study the effectiveness of education through mobile phones.
    3.1 Independent variable is the study in the lesson of gastrointestinal in the subject of anatomy and physiology 2
    3.2 Dependent variable is satisfaction of students when study through mobile phones.

Research Methodology

The object of this research is to evaluate the students' satisfaction when study the subject of anatomy and physiology 2 via mobile phones. The research tools are the lesson of gastrointestinal study through mobile phones for the first year students at Boromarajonani College of Nursing Chainat and inquiry form to evaluate the students' satisfaction. Samples of the research are the first year nursing students who register the subject of anatomy and physiology 2 in the second term of academic year.

Research Result, Review and Conclusion

The research found that students who study gastrointestinal lesson through mobile phones satisfy and have good aspect to this method. The score of satisfaction is at 4.36 mean-score and the standard deviation is equivalent to 0.56. The result would meet the standard set before conducting the research.

Table 1.
Students' satisfaction

Subject	X	S.D.	Level
1. Content and continuity	4.63	0.52	Most satisfied
2. Test and evaluation	4.6	0.50	Most satisfied
3. Design	4.51	0.54	Most satisfied
4. Lesson management	4.61	0.55	Most satisfied
5. Learning facilities	3.43	0.70	Satisfied
Average	4.36	0.56	Most satisfied

The satisfaction of the 25 samples affacting on gastrointestinal studying of the subjet of anatomy and physiology 2 through mobile phones found that the mean score of the most satisfied is 4.63 from the content and continuity. However, the less satisfied is learning facilities which has mean score at 3.43, but it would be in a meduim of the satisfactory level. The average mean score is 4.36 and the average standard deviation is qual to 0.56.

Conclusion

After conducted the research and developed the gastrointestinal lesson of the subject of anatomy and physiology 2 through mobile phones, researchers brought the lesson to test with the selected samples. The results would be the following:

1. Researchers have created the lesson through mobile phone network and could be implemented to use with Windows phone, iOS, Android that can use the Internet and wireless networks

2. The satisfactory level of using mobile phone to study in anatomy and physiology 2 is having good aspect with average mean score at 4.36.

The results of the research can be concluded that using mobile phone network in studying is effective and having adequate contents. For this reason, the lesson through mobile phones can be developed to apply in further teaching.

Expected Outcome / Benefits of the Project

In this study, researchers have expected to obtain benefits as following:

1. The research could evaluate the effectiveness of teaching through mobile phones in order to be a guidance of selecting materials in teaching processes.
2. To be a guidance of educational development in using mobile phone in the future.
3. To be a guidance of development in teaching for other subjects

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The authors would like to thank to Boromarajonani College of Nursing Chainat and Praboromarajchanok Institute for their helpful supports in order to get the work done well.

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The Relationships between Personal Factors, Social Support, Situational Influence, and Health Promoting Behaviors in the Elderly with Hypertension

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Abstract

Hypertension is a chronic disease that is the third leading cause of death in the world, in which 8 million people die from hypertension every year in the South-East Asia Region. In Indonesia, hypertension is the third leading cause of death after stroke and tuberculosis. There are many factors that motivate individuals to maintain and improve their health, such as personal factors, social support, and situational influences. The purpose of the study was to examine the relationship between personal factors, social support, situational influence, and health promoting behaviors in the elderly with hypertension. This study involved 102 elderly people with hypertension in Public Health Centre Abiansemal III, Bali, Indonesia. Data involving personal factors, social support, health promoting behaviors, and situational influences was collected using structured interview questionnaires. Pearson product moment, Point-Biserial, and Spearman rho were adopted to examine the relationships between variables. The results indicate that overall health promoting behaviors in elderly with hypertension were at moderate level, and there were significant correlations between income ($r=.355$, $p<.01$), perceived health status ($r=.355$, $p<.01$), social support ($r=.604$, $p<.01$), situational influences ($r=.372$, $p<.01$), and health promoting behaviors. On the other hand, there was no significant correlation between age, gender, education, and health promoting behaviors. This study provides a benefit for nursing practice, families, and the elderly to understand the factors related to health promoting behaviors so they can provide solutions to manage those factors to control blood pressure for the elderly with hypertension.

Keywords: Health promoting behaviors; personal factors; social supports; situational influence; hypertension; elderly.

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Introduction

Hypertension is important for the elderly because of the high prevalence and severity or impacts of the disease. A high prevalence of hypertension can be seen worldwide. In 2008, approximately 40% of adults aged 25 and above had been diagnosed with hypertension; the number of people with the condition rose from 600 million in 1980 to 1 billion in 2008 (WHO, 2011). The prevalence of hypertension in the African Region is the highest growth at 46% of adults aged 25 and above, while the lowest prevalence at 35% is found in the Americas (WHO, 2013). Similarly, in Indonesia, 31.7% of residents suffered from hypertension (Research and Development Bureau of Health of Indonesia, 2007), and in Bali the prevalence of hypertension is increasing gradually (Ministry of Health Bali, 2010).

Hypertension is a chronic disease that is the third leading cause of death in the world (WHO, 2011). Stroke and cardiovascular diseases are the major impacts of hypertension (So & Choi, 2010). In the United States, hypertension is a public health problem that affects 30% of adults (Yoon, Ostchega, & Louis, 2010; National Heart Lungand Blood Institute, 2009). Heart disease and stroke are the the first and third causes of death in the United States (Xu, Kochanek, Murphy, & Tejada, 2010). In Indonesia, hypertension is the third leading cause of death after stroke and tuberculosis (Research and Development Bureau of Health of Indonesia, 2007).

Furthermore, hypertension is the disease suffered by the elderly because of the decrease of physical condition. When a person is age 60 years and over, they may experience changes in physical, mental, psychosocial, and spiritual conditions (Nugroho, 2000). With the increasing number of the elderly, the risk of hypertension will also increase (So & Choi, 2010) because of changes in cardiovascular systems such as atherosclerosis (Royal College of Physicians, 2001). Kearney et al. (2005) claim that the number of people with hypertension will increase to 60% for a total of 1.56 billion; therefore, the proportion of the elderly will significantly increase by 2025. Nora & Rosendorf (2011) revealed that hypertension commonly increases with age. Ministry of Health of Bali (2010) revealed that hypertension is ninth on the top-rank diseases in Bali, and the number of new cases increase annually.

Besides the change of physical condition, the most common reason to develop hypertension is related to risk behaviors such as high fat, salt, or alcohol consumption. Therefore, to avoid hypertension, there are several factors to motivate individuals maintaining and improving the health promoting behaviors. For example, personal biological, psychological, and socio-cultural factors are referred to the first main factor in the Health Promotion Model (HPM) (Pender, 1996). Jaingyuen (2008) affirms that personal factors can affect ways of thinking and attitudes toward health promoting behaviors. Furthermore, age and gender indicate physical and maturity differences, which can affect cognitive and attitudes. Education also affects income earnings and economic status. It may be assumed that wealthy elderly people can afford more nutritious foods and maintain continuous treatment without worrying about income. This means that personal factors can influence health promoting behaviors (Jaingyuen, 2008).

Another factor that influences health promotingbehaviors is social support. Pender (1996) states that social support or interpersonal factors such as an interpersonal influence, beliefs, or attitudes of other individuals influence health behaviors. The elderly with hypertension may need support from social and family members to enhance their motivation and provide information on self-care practices (Jaingyuen, 2008). A strong family and social support demonstrate positive impacts on self-management behaviors and self-care practice in diabetes, breast cancer, and COPD patients (Wen, Shepherd, & Parchman, 2004). In Indonesia, according to the Ministry of Health Republic of Indonesia (2003), the proportion of the elderly who live with family is still very high, although the proportion is slightly decreased in some developed countries. Patriyani (2009) reveals that most of the elderly in Sukoharjo live with extended family.

Most of the elderly people in Bali live with their family, and their offspring usually look after their parents in various ways. For example, when elderly people get sick, other family members usually help and provide support for each other, such as cooking food, choosing good nutrition, taking medicine, taking them to the doctor regularly, and providing psychological support. Additionally, these roles may be extended to neighbors or health professionals. Based on the results of the study by Patriyani (2009), families care for and give support to the elderly because of the liability and respect of family to the elderly. Besides, the elderly also have the preference to stay with their family or stay alone. According to Zulfitri (2006), the results in Bali affirm that there was a significant association between family support and health promoting behaviors to control hypertension in the elderly.

Several studies related to social support and health promoting behaviors have been conducted in Indonesia. Anggina, Hamzah, & Pandhit (2010) who studied in Indonesia claim that there was a relationship between social support and the adherence of patients in implementing the diet for diabetes mellitus. The other studies by Nainggolan, Armiyati, & Supriyono (2012) also show that there was a relationship between family support and the adherence to consuming a low-salt diet in patients with hypertension. However, Anggina, Hamzah, & Pandhit (2010) suggest that there was no association between family support and the regularity of blood pressure control in hypertensive patients. Interestingly, inconsistence in the findings from the studies was conducted in Indonesia about the relationship between social support and health promoting behaviors. However, most of the studies conducted in Indonesia regarding health promoting behaviors were studied in adult group; just a few studies was conducted in the elderly. In addition, there were few studies in relation to factors of health promoting behaviors in some of chronic diseases, but not in hypertension disease.

Therefore, the aim of this study was to examine the relationship between personal factors, social support, situational influences, and health promoting behaviors in the elderly with hypertension in Bali, Indonesia. The findings of this study can potentially provide some benefits for nursing practice, families, and also the elderly to understand the factors related to health promoting behaviors. The health care provider, especially nurses, can provide solutions to manage factor that control blood pressure for the elderly with hypertension.

Methods

Research design

Descriptive correlation design was adopted within this study to examine the relationships between variables in the elderly with hypertension.

Population, sample, and sampling technique

Population in this study was the elderly diagnosed with hypertension aged 60 years and over, who lived in Public Health Centre (PHC) Abiansemal III, Bali, Indonesia. The total of population in these PHC was 357 people. The sample size was calculated by using G Power analysis software version 3.1.5 (Faul, 2012). Setting up α err prob= 0.05 and Power (1-β err prob) equals to 0.90 had been put in the equation. The total 102 samples completed the questionnaire. The sampling method was used to obtain samples by using stratified random sampling. The inclusion criteria of the samples were 1) the elderly aged 60 years and over, 2) who were diagnosed with hypertension by physician, and 3) willing to participate in the study.

Instruments

Personal data developed by the researcher was used to collect data such as age, gender, education, family income, and perceived health status. The researcher utilized descriptive statistic such as mean, standard deviation, frequency, and percentage to interpret these factors.

Social support was measured by using a standard questionnaire of Personal Resource Questionnaire (PRQ85), part II developed by Weinert (1987). PRQ85 questionnaire had 25 items, including dimensions of intimacy, assistance, social integration, affirmation of worth, and nurturance. There are seven points on the Likert scales ranging from strongly 1=disagree to 7=strongly agree. Negative statements had to be recoded. The total scores for this questionnaire were from 25 to 175. The higher score indicated the greater perceived social supports.

A situational influences questionnaire was developed by the researcher within the framework of Health Promotion Model (HPM) and reviewed literature. This questionnaire was used to determine situational influences of health promoting behaviors. This questionnaire had 20 questions, including some at the national and local levels. There are four dimensions in this questionnaire, including nutrition, physical activity, stress management, and specific behaviors for hypertension. There are five points on the Likert scale, including 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree. Negative statements had to be recoded. The total score for all health behaviors ranged from 20 to 100. The higher score indicates the greater the situational influences health promoting behaviors.

A health promoting behaviors questionnaire was developed by the researcher within the framework of Health Promotion Behaviors (Pender, 1996), Health-Promoting Lifestyle-II (HPLP-II) (Walker, Sechrist, & Pender, 1987). There were 34 items on this questionnaire, including dimensions of nutrition, physical activity, stress management, and specific behaviors for hypertension. There are four points on the Likert scale ranging from 1 to 4. Negative statements had to be recoded. The total score of health promoting behaviors ranged from 34 to 136. The higher score indicates the greater the health promoting behaviors.

The questionnaires were translated by back-translation technique (Cha, Kim, & Erlen, 2007) into Bahasa language and translated back into the English by different certified translators. The content validity of the questionnaires was validated by four experts with experience in applying health promotion behaviors. An Item Objective Congruence index (IOC) was used to measure the content validity. The questionnaires were tried out on 30 elderly people with hypertension in terms of reliability. The Cronbach alpha coefficient of social support =.883; situational influences =.878; and health promoting behaviors =.873. Inter rater reliability was performed by intraclass correlation coefficients (ICC). The results of ICC for personal factors = .848; social support =.837; situational influences =.864; and health promoting behavior =.887.

Ethical consideration

Approval and permission to conduct the study was obtained from the Ethic Review Board of the BCNNV (ERB No.07/2013) and the Board for National Unity and People's Protection of Bali Province (No. 070/576/BIDI/BKBP). Elderly who were willing to take part in the study were asked to sign the informed consent form before study. Anonymity and confidentiality were provided in this study.

Data Analysis

The personal factors were analyzed by frequency and percentage. All independent and dependent variable were analyzed by mean and standard deviation. Pearson product moment correlation, Spearman rho, and Point-Biseral correlation were used to determine the relationships between variables.

Results

A group of 102 elderly with hypertension were involved during the study. The respondents were 60 to 80 years old, with an average age of 66.62 years old (SD= 5.59). There were 59 females (57.8%) and 43 males (42.2%). The majority of the elderly finished primary school education (58.8%). The average years of education was 4.08 years (SD=3.05). More than half of the respondents had the average income of 977.450 in Rupiah (SD= 365.03) per month. The majority of respondents (47.1%) had perceived health status as fair.

Table 1.
Mean, Standard Deviation, and Interpretations of variables (n=102)

Variables	$\overline{X}$	SD	Interpretation
Social support	5.14	.42	Moderate
Situational influence	3.45	.65	Moderate
Overall health promoting behaviors	2.63	.65	Moderate
Physical activities	1.93	.51	Low
Nutrition	2.83	.59	Moderate
Stress management	2.99	.38	Moderate
Specific behaviors	2.50	.76	Moderate

Table 1 shows that social support for the elderly with hypertension was at a moderate level as reflected by the mean of social support score of 5.14. The respondents rated situational influences at a moderate level (mean score 3.45). The overall score for health promoting behaviors was at a moderate level (mean score 2.63). Health promoting behaviors in each dimension (nutrition, stress management, and specific behaviors for hypertension) were at moderate levels (mean score 2.83; 2.99; 2.50 respectively). In contrast, the physical activity dimension was at a low level (mean score 1.93).

Table 2.
The relationships between independent and dependent variables (n=102)

Variables	Health Promoting Behaviors	
	r	p
Age	-.140 [a]	.160
Gender	.175 [b]	.079
Education	.136 [a]	.172
Income	.355 [a]	.000
Perceived health status	.355 [c]	.000
Social support	.604 [a]	.000
Situation influences	.372 [a]	.000

[a]Pearson's product-moment correlation coefficient; [b] Point-Biserial; [c] Spearman rho

The data in Table 2 shows that income, perceived health status, social support, and situational influences had positively and statistically significant correlations with health promoting behaviors. The strongest positively and statistically significant correlation with health promoting behaviors was social support ($r=.604$, $p<.01$) followed by situational influence ($r=.372$, $p<.01$), perceived health status ($r=.355$, $p<.01$), and income ($r=.355$, $p<.01$). This indicates that the higher the numbers for social support, situational influences, perceived health status, and income are, the better health promoting behaviors will be performed by the elderly with hypertension. However, there was no statistically significant correlation between age, gender, education, and health promoting behaviors of the elderly with hypertension.

Discussion

The result of this study suggests that there was no significant relationship between age and health promoting behaviors. It can be explained that the respondents were the elderly between 60 and 80 years old, so they may have some limitations regarding physical abilities to perform greater health promoting behaviors compared with the other age group. This can be supported by Nugroho (2000) who defined that aging is a process of gradual disappearance of the tissue's abilities to repair and maintain a normal function. In addition, when a person enters the elderly stage (age 60 years and over), they will change in physical, mental, psychosocial, and spiritual conditions (Nugroho, 2000). Moreover, Chamroonsawasdi, et al. (2010) argued that when people get older, they might be less able to perform physical activities. These reasons can explain why there was no significant correlation between age and health promoting behaviors in this study. The study by Thanavaro et al. (2010) revealed that there was no significant relationship between age and health promoting behaviors in women. A study by Janpaisri (2005) about factor related to health promoting behaviors among Thai middle-age men in Pathumthani Province claimed that age is not significantly related to the overall and all six aspects of health promoting behaviors.

Regarding gender, it can be seen that there was no significant correlation between gender and health promoting behaviors. This means that health promoting behaviors of the elderly with hypertension were not affected by gender. One possible explanation is due to the equality of the gender, which can imply that males and females should receive equal opportunities in education, occupation, income, and equal treatment in health to improve their health status. This result is also congruent with the study about factors influencing health promoting behaviors of older people with hypertension found that there was no significant relationship between gender and health promoting behaviors (Jaiyungyuan, 2008).

The study found that there was no significant correlation between education and health promoting behaviors. The majority of the respondents had lower levels of education (primary school) and 30.4% of the elderly did not study in schools. Even though they had low levels of education, they also had previous experience in taking care of themselves, such as traditional food selection, taking medicine, and checking their blood pressure, so they had a moderate level of performing health promoting behaviors. Purnamaningrum from World Health Organization explained that health behaviors could be influenced by one's experiences (Purnamaningrum, 2010). For this reason, health promoting behaviors in the elderly may not always be influenced by education. This result is consistent with the study by Thanavaro et al. (2010) suggesting that there was no significant correlation between education level and health promoting behaviors in women. Another study supporting this result by Purnamaningrum (2010), about the factors associated with the public health behaviors to get health services, stated that the level of education was not significantly associated with health behaviors.

In addition, this study showed that there was a positive significant relationship between income and health promoting behaviors. This can infer that the greater the income they have, the better likelihood that the elderly with hypertension will perform heath promoting behaviors. This can indicate that the elderly, who have better financial status, can participate in more health promoting activities, such as choosing good nutrition for hypertension and choosing appropriate places and equipment to exercise than those who have a lower financial status. It can be clearly seen that the elderly want to perform activities to promote their health, such as choosing exercise equipment or providing good nutrition every day, which requires lots of money. Thus, income is one of the important factors that determine health promoting behaviors by controlling their life condition and their capacity to take action (James, Lovanto, & Shannon, 1999). This finding is also consistent with previous studies claiming that the elderly with higher income tend to participate more in health promoting behaviors among adult men (Kanjanapibul, 2001). In addition, families with a favorable income are able to access health care services, proper nutrition, and good physical activities and are less exposed to stress (Insel, Roth & Price, 2007).

This study showed positively significant correlation between perceived health status and health promoting behaviors. Perceived health status influences behaviors that subsequently affect health status; poor perception of health may lead to less engagement in preventive practices and self-care as well as inappropriate behaviors related to screening, medication, and treatment (Idler & Benyamin, 1997). According to result of this study, the elderly were less like to perform health promoting behaviors related to regularly measuring blood pressure, taking medicine, and meeting with the doctor when their perceived health status was at the moderate level. It also found that the health status of elderly was at a fair level. Thus, there was positively significant correlation between perceived health status and health promoting behaviors in the elderly with hypertension. According to Pender et al. (2011), perceived health status can influence health promoting behaviors. This means that the individuals who have a good health status are more likely to perform health promoting behaviors than those who do not have a good health status.

Social support was positively significant correlation with health promoting behaviors in the elderly with hypertension within the result. One possible explanation is that, when the respondents receive more social support, they would receive more resources to promote their health promoting behaviors; thus, they could overcome their problems better than the respondents who have less social support. The elderly need support from family and society in terms of financial support, living arrangement, and health information in order to motivate them to reach their optimum healthy during the last period of life (Chamroonsawasdiet al., 2010).This result is consistent with Pender (1996), which suggests that everybody needs social support as a basic human need. Without social support, it is difficult to drive health promotion into action. Another study by Jaiyungyuan (2008) about factors influencing health promoting behaviors in elderly people with hypertension revealed that there was a positive relationship between perceived social supports and HPB. Peker & Bermek (2010) revealed that perceive social supports were positively correlated with the overall health promoting lifestyle. Therefore, greater social support will improve their awareness of health promoting behaviors.

The positively significant correlation between situational influences and health promoting behaviors was found in this study. Most of the elderly reported that they have agreed that it is easy for them to go to the clinic; health care providers regularly give them health education about hypertension; public health services do regular checkups every month to elderly in the public health centre. According to the result, situational influences and health promoting behaviors were also found at moderate levels. So there were significant positive relationships between situational influences and health promoting behaviors in the elderly with hypertension. Phantapak (2009) revealed that situational influences include supportive facilities and places to exercise have positive relationships with health promoting behaviors in the elderly with hypertension.

Limitation

The respondents were recruited from only one public health centre in Bali. Therefore, the result of this study may not be able to strongly generalize to all elderly with hypertension.

Conclusion

This study showed there was a positively significant correlation between income, perceived health status, social support, situational influences, and health promoting behaviors, which means that the greater the income, perceived health status, social support, and situational influences, the more likely the elderly with hypertension are to engage in health promoting behaviors. However, there was no significant correlation among age, gender, education, and health promoting behaviors within this study.

Recommendations

This study suggested that nurses should provide information to the elderly about health-risk behaviors and encourage special programs such as monthly checkups of blood pressure, measurement of waist circumference, and BMI at the integrated health center or the elderly clubs. Nurses should encourage the elderly to promote exercise to increase their health and control their blood pressure. Families should also support the elderly and encourage them to exercise. The curriculum for nursing students should involve the importance of health promoting behavior and methods to promote perception of health status, social support, situational influences, and income for the elderly with hypertension.

Providing information for policy makers is recommended in order to force the health care system or campaign to motivate or raise awareness for hypertension in general. Hypertension can be prevented, and people with hypertension can control blood pressure by practicing health promoting behaviors. Testing other variables based on Pender Health Promotion Model to know about the predictor factor of health promoting behaviors of the elderly with hypertension and examining the effects of the program for these groups of respondents are also recommended.

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The Application of the Health Promotion Concept to Dental Public Health Problem Solving in Suphanburi Sports School, Thailand

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Abstract

The dental health problem is one of the most important health issues among Thai people. Oral diseases among patients can be generally prevented and the success of oral disease prevention program needed community participation. The objective of this study was to apply the health promotion concept to dental public health problem solving in Suphanburi Sports School. In addition, this study aimed at improving dental care behavior amongst students. The study subjects included 291 students who volunteered to take part in the study. The data were obtained through the semi-structured interview and the oral examination. Results were computed and reported as descriptive statistic presentation. Findings showed that approximately the DMFT among students was 2.29 tooth per person, which was higher than the DMFT standard value. The focus group discussion using the AIC process with participants was employed to obtain factors of oral problems. Results also highlighted the importance of factors causing dental caries including the lack of oral hygiene care and malnutrition. According to this study, the final proposal is to apply "Towards the Success of the Dental Health Programme" to solve the dental public health problems in the school.

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Introduction

Oral health is one of the important health problems in Thailand. The Sixth Thailand National Oral Health Survey found that 56.87% of 12-year-olds had dental caries and 1.55 DMFT4. The dental caries prevalence has increase to 66.33% and 2.24 DMFT in 15-year-olds. Suphanburi Sports School oral health survey with 291 students aged between 13 and 15 year olds found that DMFT was 2.29

The study applied the Ottawa Charter to the concept of community participation[2] with focus group discussion[3]. The appreciation-influence-control (AIC)[4], in-depth interview[6] was used to improve oral health status.

Objective

1. To study the effectiveness of using the Ottawa charter as a Framework for oral health promotion in Suphanburi Sports School
2. To empower the students at Suphanburi Sports School to improve oral health care
3. To improve the oral health care behaviors of Suphanburi sports school students

Method

The application of oral health survey among Suphanburi Sports School students and the Ottawa charter concept were employed as a framework for oral health Promotion.

Data collection

Primary data collection consisted of survey school environmental, observations, oral health examination, in-depth interviews and focus group discussion with teacher and parents.

Secondary data collection consisted of student health care card, health system report.

Population

291 Suphanburi sports school students took part in the survey.

Data analysis and community participation

The PRECEDE model[5] was used to analyze the oral health problems. The appreciation-influence-control (AIC) Approach was used to develop the oral health promotion project of schools based on the principles of the Ottawa charter**.**

Result

The study of dental health problem in Suphanburi Sports School findings showed DMFT among students was 2.29 teeth per person that was higher than the DMFT standard value. The researcher used the community participation process such as AIC, focus group discussion to search the causes of problems and planning to manipulate the project for solving dental health problem. Results also highlighted the importance of factors causing dental caries including the lack of oral hygiene care and malnutrition. Found that students focus on the solution and can achieve the project goals. 70 % of students have a good knowledge and attitude to oral health care. Eighty percent of mainstay students have a good knowledge and attitude to oral health care and can brush teeth correctly.

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Discussion

The study of applying the Ottawa Charter and community participation process to solve the oral health problems in Suphanburi Sports School showed the concepts of the health promotion affecting the project success. This study, referring to the study of Kannikar Chomdee (1981), found that the gender, age, education, occupation, income and family size association with the level of the participation. Higher education and the administrative board could help lessen the problem. It is recommended that the study needs of focus more in other community. Building the development model to reduced the problem and create a friendly society may be helpful. Participation in policy formulation or program decision, control, monitoring and evaluation and maintenance could be beneficial to the community.

Suggestions

Future study should be focused more in other groups to create the guideline for oral health promotion. In addition, further comparative study with other factors associated with the oral health care behavior amongst students in other areas could be undertaken.

Exposure to Alcohol Product Placement among Thai Youths

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Tassanee Krirkgulthorn [3]

ABSTRACT

Background: Modern media and technologies are environment factors affect awareness and values of drinking. Alcohol advertising and marketing activities are the most influential predictor of decision to drink among youths.
Purpose: This qualitative study investigated youths' experiences and perceptions towards alcohol product placement on television and social media in Thailand.
Methods: Four focus groups were conducted in August, 2013. Participants were 35 students, grades 4^{th} to 12 and vocations 1-3. Each group comprised of 8 students that categorized according to levels of education: primary, secondary, high school, and vocation 1-3. They were asked to explaine their previous experienced with alcohol product placement and opinion towards alcohol use. Content analysis was used to illicit youths' experienced and opinions with alcohol product placement.
Results: Majority of participants indicated that they were more exposed with visual-audio and visual-only alcohol product placement in daily life environment and alcohol information flow to children and young people very easily. They reported of seeing non alcohol beverage advertising with similar alcohol brand and logo on TV programs includes game shows and sport broadcasting. The more frequent of their exposures affect brand recognitions, desirability, and product selection for future purchase.
Suggestion: This study provides support for significant of alcohol product placement as one of environmental factors in daily life that affect brand recognition, brand selection, and intentions of alcohol consumption.

Keywords. Alcohol, Product Placement, Youths, Qualitative Study, Content analysis

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INTRODUCTION

Drinking is the major problem that directly affects quality of life. Proportion of youth experienced with alcohol consumption is increased in Thailand. National survey reported approximately 20% - 40% teens involved in alcohol consumption and the urgent to prevent alcohol access and to delay age at start drinking. The younger they start having experienced with drinking they are more likely to drink continuously. Up to two-thirds of young men and nearly half of young women who had experienced with drinking in life were reported of drinking in the past 30 days. Previousresearch focused on alcohol media communication and youth drinking behavior revealed key indicator of the problem and the need of better controlling of alcohol media and exposure among teens (Sathapitanoth, 2008).

Media and technologies are environment factors affect awareness and values of drinking. Alcohol advertising and marketing activities are influential on decision to drink among youths. The 2007 education and health surveillance of social media on alcohol ads in media TV found 66% of TV advertising was alcohol products and 4% was soda ads. Researchers reported that more than two in three alcohol advertising were hidden content mostly on news program, followed by a list of magazines, talk shows, documentary series, and the least was on movies.

The law to control alcohol advertising in Thailand was more restricted under the 2008 Alcoholic Beverage Control Act that required of having warning message with the appearance of alcohol brand or logo in advertisement. However, the enforcement was applicable only on alcohol advertisement through public media such as radio, television, small and large billboards but not for social media such as advertising on internet which youth still conveniently see the image of alcohol ads. The company also used alcohol marketing and public communication to convince and invited youth to drink by giving reward and bonus points. This reflects the efforts of Alcohol Company in using appropriate communication and marketing to reach consumers under changing technology and circumstances over time. These areas are being developed quickly and continuously and alcohol consumer attitudes, behavior, and lifestyle patterns also adapt follow media consumption patterns as well. (Thaikla, 2010).

Direct exposure with alcohol

- Point of purchase
- Billboards,
- Alcohol boots,
- Events
- Sale promotion
- Brand on non alcohol –product
- Advertisement spot

Figure 1. Frequent channels direct exposure with alcohol among teens

Product placement is an advertising technique used by companies to cleverly promote their products usually through appearances in film, television, or other media. Product manufacturer and the media company often initiated through an agreement for placements in which the media company receives economic benefit. In this case, alcohol company will pay a fee to have their alcohol product used, displayed, or significantly featured in a movie or show. Previous study of media monitoring project on alcohol advertising reported product placement in 5 patterns: short VCR at the beginning of program, logos at the screen corner, materials at the scene on air, advertise through the act of program moderator, and placement that integrated with program content (Chuasathapanasiri, n.d.).

The report of alcohol marketing activities and alcohol companies revealed new changing strategies of alcohol advertising that shifted from direct to indirect advertising. Steak holders are protest for the alcohol enforcement of daily limiting direct advertising of alcohol on TV from 5-10 pm and prohibit of displaying alcohol pictures or advertisement on newspaper at the front and back pages, central pages, and allow for making the business case through the corporate social responsibility (CSR) with warning label of adverse consequence from drinking explicitly. These limitations of alcohol advertising on sending message of motivation to drink made the alcohol investors more provide sponsorship to sports and other gathering events.

For this reason, exploring alcohol media exposure focus on product placement, among youths, who are at risk of becoming the new face drinkers, is an important research. The purposes are to understand the nature of the media and how media exposure in daily life of youth Thailand. This finding can be used to plan a campaign to prevent and resolve problems related to alcohol use among youth in Thailand.

METHOD

This qualitative study is part of the research project "The effect of alcohol advertising underlying thinking processes to interpret the detailed information and decisions of alcohol use". This study was approved by the Research Ethics Committee of the Boromrajonni Nursing College, Saraburi, Thailand IN 2013.

Participants

Participants were 35 male and female students, grades 4-12 and vocations in Bangkok and Saraburi provinces. All participants were informed of their rights before participating in the study.

Data collection

In August 2013, five focus groups were conducted on each group of 6-7 students in school setting. Focus group discussion took about 1.5 hours in each group and conducted in a private room. Students were asked to discuss their exposure to alcohol advertising on television and social media. All conversations were audio-recorded and transcribed verbatim. Pseudonyms were used in the report of conversations.

Focus group guiding questions

The guiding questions used to stimulate discussion were 1) obtaining basic information related to exposure experience with alcohol media in daily lives of youths in Thailand, 2) exploring youths' perception towards marketing communication of alcohol products, and 3) the recall recognition on product placement saw on alcohol advertising of youths.

Data analysis

Content analysis was used to systematic analyze students' exposure to product placement of alcohol use. All data were analyzed by two researchers. Themes were defined with ongoing analysis to review consistency and to generate clear definitions for each theme.

RESULTS

Content analysis across age group revealed that the majority of participants were flooded with alcohol information daily. Youths were more exposed with visual-audio and visual-only alcohol product placement in living environment. They reported of seeing non alcohol beverage advertise with similar alcohol brand and logo on TV. They also recalled of their experienced with alcohol sponsorship in game shows, sport events, and news broadcasting. They felt the more frequent of their exposures the more its affect brand recognitions, desirability, and product selection for future purchase.

Media Exposure channels

The exposure by types of media channels was showed in Table 1.Message content received and times spent were analyzed from focus group transcription across age group. Findings were summarized as follow:

Major channels for exposure to alcohol media and advertisement of Thai youths include television, radio, newspapers, magazines, and social network. This study found that Thai youths connected to social media through computer and get connect to other and join as a group using Instagram. However, the most frequent media channel used for exposure to alcohol advertisement across age group was through television. When categorized according to levels of education revealed that younger students did not like to listen to radio. Moreover, the least popular media channel for receiving alcohol information was through printing such as newspaper or magazine as showed in Figure 2.

Media channels

- TV
- Radio
- Printing: newspaper, magazines
- Social network: Facebook, Instagram, Socialcam

Figure 2. Media channel for receiving alcohol information

Most students reported of spent time watching television in the evenings and on the weekends. Their favorite programs led to expose on alcohol product placement was game show and variety, as well as live sports events. They also were using a cell phone, smart phone without having the internet package or Wi-Fi signals, but use internet signal from home. Youth who participate in social media were get in a group and went on Facebook and webcams. Regarding the most commonly social media used among young people at all levels of education who join in groups were Facebook. The purpose was for communication and sharing information with friends and acquaintances. They also to shared photos and short messages via Instagram and Socialgram which allowed users to edit photos right from their existing filters in this application. They went on Facebook site and push "Like" to reflect their participation and perception on appreciation.

In terms of the time of media used, they typically went on Facebook in the evenings after school and during the night. Social media is often used for entertainment and to keep track of people, artist, actor, singer of their interests in Thailand and abroad. Youths in high school and vocations were found to use Instagram and Socialcam to keep track of their favorite artist, actor, and singer. Social media is a social site of video clip sharing in the network. Youths were more followed non- actress but a pretty famous teens. Male youth from the secondary who joined the group often downloading new sticker by gaining access to the brand products and send to each other.

Exposure to Alcohol product placement

The results of qualitative data analysis of youths' exposure to alcohol product placement advertising showed the exposure on daily basis at point of purchase, billboards, boots, events, sale promotion, and the use of similar alcohol brand on non-alcohol product. The interesting finding was that the use of bottle cap for playing chess made primary school students gained more familiarity and recognized brand of alcoholic beverage. For alcohol product placement exposure through media, TV is the most frequent channels of alcohol media exposure experiences as part of everyday life. Youths who participate in group discussions reported of exposure with both Visual - Only Placement and Visual - Audio as a way to draw attention to several television commercials, TV variety, and sport program. They also reported the visibility of alcohol advertising at at the beginning of program, logos at the screen corner, materials at the scene on air, alcohol logo, and brand on non alcohol – product (Figure 3).

Majority of participating youth said that they remember the presence of alcohol brand on sport teams or to support and sponsor the event. The content of the items mostly found in the sign of support. The alcohol brands are also used in other non- alcoholic beverage products with the same Logo but they did not appear to recognize the placement of alcohol product integrated in media content of the program shows. For spot advertisement of alcohol products on television, most youths who were exposed can recognize the logo, brand, as well as content in ads. However, some youth who participate in the group discussion could not distinguish whether the brand advertising is alcoholic beverage or not.

Alcohol product placement: Type and channels

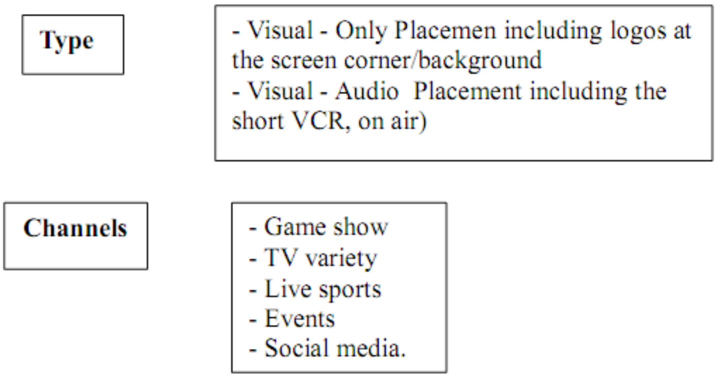

Figure 3. Channels and types of alcohol product placement exposure

Exposure to alcohol product placement through internet with social media and online media was found to be the minimal when compared to other types of media channels. Teens who participate in online group discussions were indirect exposed to alcohol product placement advertising that caused them to access the alcohol Fanpage or events activities such as concert on Facebook and the downloading of sticker and offline sponsored by alcohol companies which is the visual -only placement. However, youths did not notice of seeing any advertisement that present alcohol brand and logo online.

DISSCUSSION

This study provides support for significant of alcohol product placement as one of environmental factors in daily life that affect brand recognition, brand selection, and intentions of alcohol consumption. Alcohol advertising through product placement is one of the effective strategy that alcohol producer currently used to increase alcohol product and services popularity. The effectiveness of advertising can disguise the awareness, understanding, feeling, or attitude that made consumers are likely to purchase and change in habits (Family network surveillance, 2011).

Majority of participants indicated that they were more exposed with visual-audio and visual-only alcohol product placement in daily life environment and alcohol information flow to children and young people very easily. They also reported of seeing non alcohol beverage advertising with similar alcohol brand and logo on TV programs includes game shows and sport broadcasting. The more frequent of their exposures affect brand recognitions, desirability, and product selection for future purchase. Findings in this study was similar to survey results conducted on 5,135 people aged 11 to 60 years who reported that the recognition of alcohol logo had an influence on the selection of alcohol product. Participants in this study for 72.1 % recognized alcohol logos and can specify the advertising of each alcohol brand. In addition, 65.7 % of non drinkers also understand that the logo on drinking water was the same with which alcohol brand. The recognition of alcohol brand was found to associate with future consumption of alcohol (Bangkok Business news, 2007).

CONCLUSION

Study of the exposure to alcohol advertising among Thai youth found that young people experienced with alcohol marketing directly and indirectly at high level. Young people who have never drink also familiar with alcohol brand by the presence of the brand in their daily life. The most frequent channel for exposure with alcohol product placement remain television. However, the potential exposure of alcohol advertising through social media channels (online social media) began to appear in Thai youth. There is a high probability that this media will become a new channel of advertising for alcoholic beverages. Behavioral trends of media use of Thai teens of communication through social media become an important part of everyday life. Thus, the product placement related to alcohol using either images and sound associated with the brand received through social media may lead to familiarity and preferences that influent attitudes and behavior of young people in relation to alcohol consumption.

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Factors Affecting the Happiness of Elderly in Thailand and Lao PDR

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Abstract

With the rapid growth of an aging society, happiness and quality of life in elderly are key indicators that have become more of an interest and concern in many countries. Thailand and Lao PDR, close neighbor countries with similar cultures and living lifestyles, have elderly populations ≥60 years around 14.7% and 5.3% of the whole population, respectively. To promote happiness in elderly, we must understand the factors affecting it. This cross-sectional analytical study was done to investigate happiness and perceived quality of life of elderly and to explore factors affecting elderly happiness. A questionnaire for interviewing elderly at home was developed and evaluated for validity and reliability. Some 300 Thai elderly in Maha sarakham province and 200 Lao elderly in Vientiane were randomly selected and interviewed within 6 months. Multiple regressions, chi-square, and independent t-test were used. Thai elderly aged 69.45±7.22 (60-97 years) and Lao elderly aged 67.65±6.35 years (60-93 years) had happiness scores (0-100) of 80.77±17.26 and 67.97±17.41, respectively. Thai and Lao elderly showed perceived quality of life scores of (0-210) 170.44±18.98 and 139.25±29.70, respectively. In the Thai elderly model, eight factors significantly affecting their happiness were health status (β=0.319, p<0.001), satisfaction in family (β=0.156, p=0.008), perceived quality of life (β=0.294, p<0.001), satisfaction in income (β=0.148, p=0.005), female (β=0.152, p=0.004), no need of help from care-giver (β=0.133, p=0.012), emotional control (β=0.148, p=0.009), and no debt (β=0.131, p=0.014). The Thai model showed the total explained variation of elderly happiness was 57.5% ($F_{7,298}$=27.895, p<0.001). For the Lao elderly model, six factors significantly affecting happiness were health status (β=0.314, p<0.001), good self-care (β=0.417, p<0.001), satisfaction in family (β=0.184, p=0.003), participation in community as a consultant (β=0.169, p=0.001), self-esteem (β=0.152, p=0.008), and number of members in family (β=0.113, p=0.018). The coefficient of determination of the Lao model was 39.3% with the significance of the model ($F_{5,198}$=29.723, p<0.001). It can conclude that the crucial factors of happiness in both Thai and Lao elderly are their health status and satisfaction in family. Increases in health supports for elderly and strengthening relationships in the family are the essential keys for promoting happiness in both Thai and Lao elderly.

Keywords: elderly, happiness, perceived quality of life, family, health, satisfaction

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Introduction

The United Nations defined elderly as people aged 60 years or above[1]. It is a population that now shows more rapid growth than other age group. The World Health Organization (WHO, 2012) has reported interesting facts about aging; it revealed that between 2000 and 2050, the proportion of the world's population over 60 years will double from about 11% to 22%. Then the absolute number of people aged 60 years and over is expected to increase from 605 million to 2 billion[2]. Population aging is the increase in the number and proportion of elderly in society; whenever the proportion is more than 10% of the whole population, it will be the aging society. With the major reasons of living longer and decreased birth rates in all regions of the world, the population aging phenomenon brought the rapid dramatic demographic change particularly in Asia and Europe. The Oxford Institute of Population Ageing[3] explained that population aging has slowed considerably in Europe and will have the greatest future impact in Asia.

Thailand and Lao PDR, two countries in Southeast Asia, are good neighbors with similar traditions and cultures. Thailand has become a country with aging society since 2007 with 10.7% of its population elderly. In 2013, Thailand has 9.5 million adults +60 years from the whole population of 64.6 million or 14.7% of its population.[4] For Lao PDR, the number of elderly is increasing gradually; there was 5.3% or around 0.32 million elderly in 2005.[5]

Happiness is the essence of life and a need of all people in every age, especially elderly. Life happiness has been found to be inversely associated with mortality.[6] Because they face multidimensional changes—such as physical, psychological, emotional, and social change in this age—the elderly need life happiness and quality of life. According to WHO's definition, quality of life is the multidimensional indicator. It is the individual's subjective perception of his/her life position through expectations, standards, concerns, and experiences.[7] In elderly, life happiness and perceived quality of life are now key indicators that have become more of an interest and concern. To promote happiness in elderly, we must understand the factors affecting it. This cross-sectional analytical study aimed to investigate happiness and perceived quality of life of elderly, and to explore factors affecting their happiness.

Materials and Method

This cross-sectional analytical research was done with elderly in two areas: Thailand and Lao PDR. The population density was a criterion for selecting one province representing Thailand and one province for Lao PDR. Maha Sarakham, a northeast province in Thailand with the density of population 178.61 person/km^2, and Vientiane, a capital province of Lao PDR with the density of population 178.14 person/km^2, were selected. These two provinces are similar in cultures and traditions. This survey was done in 2009. Samples were elderly aged 60 years or above during the survey year. Some 300 elderly in Maha sarakham and 200 Lao elderly were randomly selected using the multi-stage random sampling from districts in each province.

Steps of the research procedure were 1) instrumental development, 2) training the research assistants for data collection, 3) collecting data in the selected districts of each province, and 4) data analysis.

The questionnaire for interviewing the elderly, the research instrument for this project, was developed from literature reviews and expert recommendations. It was composed of seven parts: 1) general demographics of the elderly and their 10 mm-Visual Analogue Scale, VAS participation; 2) Perceived Quality of Life, 21 items with 0-10 score per each item; 3) Family satisfaction, 1 item with 7-likert scale; 4) Self-esteem, 10 items with 4-Likert scale; 5) Emotional control, 10 items with 5-Likert scale; 6) General Health, 28 items with 4-Likert scale; and 7) Happiness, 1 item (0-100 mm VAS). This instrument was assessed for content validity by three experts in the field of psychological and public health. Internal consistency reliabilities of this instrument are shown in Table 1.

Chi-square and independent t-tests were used for difference comparisons between groups, and multiple regressions were used for two models of happiness of Thai and Lao elderly.

Table 1.
Internal consistency reliability of psychological parts of the study instrument

Psychological factors of this study instrument	Reference	Cronbach's Alpha Coefficient
1. Perceived Quality of Life, 21 items	The University of North Carolina, Chapel Hill (Patrick et al, 2000)[8]	0.958
2. Self-esteem, 10 items	Rosenberg (1965)[9]	0.689
3. Emotional control, 10 items	Gross & John (2000)[10]	0.821
4. General Health, 28 items	Goldberg and Hillier (1979)[11]	0.890

Results

Some 300 Thai elderly and 200 Lao elderly have completed the interview. The interview consumed around 1-3 hours per person. The results have been reported in four parts.

1) General characteristics of Thai and Lao elderly

According to those living in Vientiane, a capital city of Lao PDR, more than 50% of Lao elderly have been in municipality areas, doing business or being workers. For Thai elderly living in Maha sarakham, a rural province of the Northeast Thailand, 91.3% of them are homeowners, 72% do not have debt, and 33.3% of them did rice field agriculture. Consequence of current occupation, Lao elderly showed a higher level of income satisfaction. There were some differences between the two groups of elderly. First, 92% of Thai elderly had primary school, and 40.5% of Lao elderly had no education. In terms of number of family members in a house, Lao elderly had more family members in a house with an average of 6.20 ± 2.00 persons, compared with Thai elderly who had 4.54 ± 2.01 persons per house. The details of elderly characteristics in each country are shown in Table 2.

Table 2.
General Characteristics of Thai and Lao Elderly (n=500)

Characteristics of Elderly	Frequency (%)		Chi square / t	p value
	Thailand (n=300)	Lao PDR (n=200)		
Gender			0.942	0.332
- Female	206 (68.7)	129 (64.5)		
- Male	94 (31.3)	71 (35.5)		
Accommodation areas			155.58	<0.001*
- In municipality area	25 (8.3)	120 (60.0)		
- Out of municipality area	275 (91.7)	80 (40.0)		
Education			218.32	<0.001*
- No education	12 (4.0)	81 (40.5)		
- Primary school	276 (92.0)	57 (28.5)		
- Secondary school	7 (2.3)	32 (16.0)		
- Certificate or vocational school	2 (0.7)	19 (9.5)		
- Bachelor degree or above	3 (1.0)	11 (5.5)		
Marital status			9.362	0.025*
- Single	10 (3.3)	3 (1.5)		
- Married and live together	159 (53.0)	117 (58.8)		
- Separated	8 (2.7)	14 (7.0)		
- Widowed	123 (41.0)	66 (33.0)		
Homeowner			20.591	<0.001*
- I own	274 (91.3)	155 (77.5)		
- Children own	20 (6.7)	40 (20.0)		
- Relatives or other own	6 (2.0)	5 (2.5)		

Characteristics of Elderly	Frequency (%)		Chi square / t	p value
	Thailand (n=300)	Lao PDR (n=200)		
Current occupation			87.287	<0.001*
- Labor/worker/officer	21 (7.0)	20 (10.0)		
- Own business/merchant	14 (4.7)	37 (18.5)		
- Agriculture	100 (33.3)	3 (1.5)		
- No occupation	165 (55.0)	140 (70.0)		
Have any dept.			211.095	<0.001*
- Have	76 (25.3)	165 (82.5)		
- Do not have	216 (72.0)	15 (6.0)		
- Cannot answer	8 (2.7)	23 (11.5)		
Ability to do self-care in daily life			1.481	0.224
- Do by himself/herself	274 (91.3)	176 (88.0)		
- Do with caregiver	26 (8.7)	24 (12.0)		
Need help or assistance			13.370	<0.001*
- Need	283 (94.3)	169 (84.5)		
- Do not need	17 (5.7)	31 (15.5)		
Personal chronic disease			0.782	0.377
- Have	165 (55.0)	118 (59.0)		
- Do not have	135 (45.0)	82 (41.0)		
Satisfaction in income			b	0.001*
- Most satisfied	3 (1.0)	23 (11.5)		
- Good satisfied	32 (10.7)	35 (17.5)		
- Moderate satisfied	152 (50.7)	73 (36.5)		
- Both satisfied and unsatisfied	33 (11.0)	34 (17.0)		
- Certain unsatisfied	65 (21.7)	20 (10.0)		
- More unsatisfied	7 (2.3)	12 (6.0)		
- Most unsatisfied	8 (2.7)	3 (1.5)		
Health status			b	0.021*
- Very good	9 (3.0)	10 (5.0)		
- Good	102 (34.0)	45 (22.5)		
- Moderate	165 (55.0)	119 (59.5)		
- Bad	24 (8.0)	26 (13.0)		
Self-care status			b	<0.001*
- Unable to self-care, need caregiver	1 (0.3)	14 (7.0)		
- Able to self-care but need caregiver	71 (23.7)	67 (33.5)		
- Able to self-care and do not need	13 (4.3)	45 (22.5)		
caregiver	66 (22.0)	50 (25.0)		
- Able to self-care and able to be a				
caregiver for family in sometimes	60 (20.0)	17 (8.5)		
- Able to self-care and able to be				
caregiver for family and neighbors	89 (29.7)	7 (3.5)		
- Able to self-care, to be caregiver for family and neighbors and able to be a consultant for community				
Age (years); Mean ± SD (Min-Max)	69.45 ± 7.22 (60-97)	67.65 ± 6.35 (60-93)	2.938	0.003*
Number of family members (person); Mean ± SD (Min-Max)	4.54 ± 2.01 (1-10)	6.20 ± 2.00 (1-15)	9.076	<0.001*
Monthly income (Baht); Mean ± SD (Min-Max)	1,972.68 ± 2,686.30 (0-28,000)	1,929.90 ± 2,315.00 (0-13,000)	0.183	0.855

b = test by Mann Whitney U test

2) Score of participation

Participation is a key factor affecting elderly life happiness. From the survey, it revealed that more than 90% of both Thai and Lao elderly have participated with family. More than 50% of Thai elderly have been the member of elderly club and community activities, while more than 90% of Lao elderly have had no participation with a club and are not advisors in the community. The mean scores (0-10) with standard deviation of four types of participation were calculated and are shown in Table 3.

Table 3.
Four types of participation in Thai and Lao elderly (n=500)

Participation (0-10 score)	Thailand (n=300)		Lao PDR (n=200)		t	p value
	n (%) no participate	Mean±SD	n (%) no participate	Mean±SD		
Participation with family	2 (0.7)	8.53±1.97	15 (7.5)	6.21±2.00	12.710	<0.001*
Participation as a member of elderly club	151 (50.3)	2.84±3.39	193 (96.5)	0.19±1.09	12.600	<0.001*
Participation in community activities	15 (5.0)	7.55±2.72	66 (33.0)	2.86±2.55	19.348	<0.001*
Participation as a consultant, lecturer, or advisor of community	194 (64.7)	2.69±4.00	189 (94.5)	0.27±1.21	9.859	<0.001*

3) Psychological factors and happiness

Four psychological factors, one health status perception, and happiness were assessed. The results showed that Thai elderly had significantly higher scores on psychological factors, health status perception, and happiness. These mean scores are reported in Table 4.

Table 4.
Psychological factors, health status perception, and happiness of Thai and Lao elderly (n=500)

Psychological factors and perception	Mean ± SD		t	p value
	Thailand (n=300)	Lao PDR (n=200)		
Perceived Quality of Life (0-210 scores)	170.44 ± 18.98	139.25 ± 29.70	13.170	<0.001*
Satisfaction in family (1-7 scores)	3.19 ± 0.76	2.94 ± 0.94	3.168	0.002
Self-esteem (10-40 scores)	30.51 ± 3.97	27.67 ± 3.19	8.478	<0.001*
Emotional control (10-50 scores)	38.86 ± 3.10	34.74 ± 5.01	10.348	<0.001*
Health status (28-112 scores)	96.11 ± 6.82	88.97 ± 12.61	7.290	<0.001*
Happiness (0-100 scores)	80.77 ± 17.26	67.97 ± 17.41	8.085	<0.001*

4) Factors affecting happiness of Thai and Lao elderly

From multiple regression models, two models of happiness were evaluated: Thai elderly happiness model and Lao elderly happiness model. The significant factor in Thai elderly model is shown in Table 5, and Lao elderly model is shown in Table 6.

For the Thai elderly happiness model, the eight factors positively affecting happiness were health status score, satisfaction in family, perceived quality of life, good satisfaction in income, and emotional control. Moreover, female, having self-potentiality (without need or help), and having no debt are significant factors for Thai elderly happiness. These eight factors account for 57.5% of the happiness variance.

Table 5.
Thai elderly model of happiness (n=300)

Variables	Unstandardized coefficient (B)	Standardized coefficient (Beta)	p value	R^2	Adjusted R^2
(Constant)	-44.194	-	<0.001	-	-
1. Health status score	0.440	0.319	<0.001	0.389	0.382
2. Satisfaction in family	3.058	0.156	0.008	0.068	0.068
3. Perceived Quality of Life	0.176	0.294	<0.001	0.040	0.036
4. Income satisfaction in good level	6.783	0.148	0.005	0.015	0.020
5. Female	5.578	0.152	0.004	0.016	0.008
6. No need of help or assistance	6.673	0.133	0.012	0.017	0.015
7. Emotional control	0.532	0.148	0.009	0.014	0.011
8. Not having debt	9.255	0.131	0.014	0.016	0.014

R^2 = total explanation of happiness variance in Thai elderly = 57.5%

For the Lao elderly happiness model, the six factors positively affecting happiness were health status score, good self-care, satisfaction in family, participation as a consultant for community, self-esteem, and number of family members in a house. These six significant factors explain the total of 39.3% of the happiness variance in Lao elderly.

Table 6.
Lao elderly model of happiness (n=200)

Variables	Unstandardized coefficient (B)	Standardized coefficient (Beta)	p value	R^2	Adjusted R^2
(Constant)	-46.529	-	<0.001	-	-
1. Health status score	0.797	0.314	<0.001	0.161	0.158
2. Good self-care status	16.987	0.417	<0.001	0.125	0.123
3. Satisfaction in family	4.151	0.184	0.003	0.053	0.051
4. Participation as a consultant for community	0.728	0.169	0.001	0.023	0.021
5. Self-esteem	0.666	0.152	0.008	0.019	0.017
6. Number of members in family	0.965	0.113	0.018	0.012	0.010

R^2 = total explanation of happiness variance in Lao elderly = 39.3%

Conclusion

From the survey in two areas of two countries, there were some differences in general demographics between two groups of elderly. Because of living in a capital city (Vientiane), Lao elderly had differences in house possession, current occupation, having debt, and income satisfaction. Lao elderly have had average numbers of family member in a house more than Thai elderly, while Thai elderly showed significantly higher scores on psychological factors than Lao elderly. From regression models, both Thai elderly and Lao elderly showed two factors positively affecting their happiness: health status score and satisfaction in family. These findings, similar to those found in the study of Tuntichaivani and team (2009)[12], reported that the significant factors associated with life happiness of the Thai elderly were gender, education, health condition, personality, self-esteem, family relationships, roles of the elderly in the family, monthly income of the family, social support, participation in social activities, and perception of social circumstances (p<0.05). However, this result showed the contrast within the study of elderly in the Lucknow district of Uttar Pradesh[13], which found that elderly living in an urban area showed the higher subjective happiness than the elderly in a rural area.

From our findings, we concluded that the crucial factors of happiness in both Thai and Lao elderly are their health status and satisfaction in family. Increasing health supports for elderly and strengthening family relationships are the essential keys for promoting happiness in both Thai and Lao elderly.

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Effect of Stroke Educating Program towards Village Health Volunteers' Ability to Provide Home-Care Service

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Abstract

The purpose of this quasi-experimental study was to examine the effect of stroke educating program towards village health volunteers' ability to provide home-care service. The participants were 15 village health volunteers in Suphanburi. The multi-stage random sampling method was used to recruit the participants. The instruments were as the following: Part 1 - data collect tools, including (1) village health volunteer's personal record, (2) village health volunteers' stroke knowledge assessment test, and (3) village health volunteers' skill test; and Part 2 - experimental tools, including stroke educating program provided to village health volunteers to provide home care service. On data collection process, researchers had arranged stroke-educating program and provided to village health volunteers; evaluated volunteers' knowledge before and after program finished. Data were analyzed data using percentage, mean, standard deviation, and T-test statistics. The findings showed that compared between pre-test and post-test scores, there was a statistically significant difference on knowledge and skill score of the village health volunteers' ability to provide home-care service ($p < .01$). This study points out that stroke educating program provided to village health volunteers should be provided to improve volunteers' ability to provide proper home care service and help stroke patients to recover and resume good living quality.

Keywords: ability to provide care, educating program, stroke patient

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Background and Significance

Stroke or widely known as cerebrovascular disease is the loss of brain function due to disturbance in the blood supply to the brain. This can be due to ischemia (lack of blood flow) caused by blockage (thrombosis, arterial embolism), or a hemorrhage. As a result, the affected area of the brain cannot function. Symptoms and severity depend on the loss position in the brain. World Health Organization had reported that 5.7 million people around the world had died of stroke in 2005 (Arbsuwan,N., Phanthuvet,N.& Kamphiboon, M., 2011). And also announced that it was the second cause of death among 60 years or more people and it was the fifth cause of death among 15-59 year-old people(Ministry of Public Health, 2001). It had been found that two third of stroke patients belonging to medium to low income countries. In Thailand, it had been found that stroke became more important cause of death. Especially in 1999-2009, it had been found that patients admitted in hospitals belonging to the ministry of public health (excluding Bangkok) was increasing 2.45 times and tended to increase continuously. The statistic number showed that severity of stroke was relatively stable. In spite of medical revolution and modernized treatment during sudden cases, numbers of death were decreased but survivors were disabled increasingly. Only 10 percent of these patients could recover completely, 40 percent were a bit disable, 40 percent were highly disabled and needed home care and the other 10 percent of patients were completely disabled and hospitalized. The last group of patient was dependent on life saving equipment. Commonly found disabilities included hemiparesis, trouble walking, loss of balance, acataposis or choking, speech problem, disorganized thinking, emotion change, loss of sensation, and unable to control defecation. If they were ongoing, there would possibly be other complications and patients needed to be admitted in the hospital many times (Puangwarin, N.&Viriyavejkul, A., 2001). In worse cases, if care givers lacked knowledge of stroke and did not control risk factors, secondary stroke might have caused death or more serious disability (Neurological Institute, 2007). Further to the limited medical budget from the government and the effort to increase admission flow of different public hospitals, hospitalization of these patients tended to be shorter and limited for emergency cases. Patients would be released to recover at home. It was, therefore, important to provide effective home care to minimize disability and complications among these patients. In time treatment and proper physical therapy were highly needed to improve patients' quality of life and promote their self-dependence as much as possible. Factors influencing individual's quality of life were varied. Patients who could not take care of themselves most perceived dissatisfaction of their disability and had poor life satisfaction (Hirankror, B. , Wannarit, T. & Panya, P., 2007). Educating about continuous self-care and how to improve their routine activity would help them to recover and resume good quality of life again. These aims could not be achieved without efficient caregivers who lived with patients but were not medical personnel. Caregivers or relatives, somehow, could not take care of patients completely and accordingly due to lack of knowledge or time. It was highly needed to have village health volunteers to provide help and support. It was, therefore, important to educate and train these volunteers to be effective enough to provide home care service.

Village health volunteers refer to nominated staff by the local people and trained on health care service specified by the ministry of public health. They had major role as leaders in implementing health and sanitation development and local citizens' quality of life. They led in changing local citizens' health and sanitation behavior, clarified misconception and publicized correct information, provided health care service, coordinated in public health matters, solved people's problem and were role model. Their responsibilities included 1) to publicize public health news and information to officials and local people and invite people to receive public health services. 2) to advise and educate village headmen and local citizens how to take good care of their family members' health and promote traditional herb and treatment. 3) to provide public health care service such as first aid to local citizens. 4) to work at sub-district health promoting hospital. 5) to monitor and prevent public health problem in the village such as watching out and prevent nutritious problem or malnutrition among children in the village or looking after mother and child sanitation. 6) to be leaders in planning and managing public health preventive and community development plans subsidized by the ministry of public health. 7) to be leaders in inviting villagers to participate in public health development campaign in the village and improve people's quality of life with fundamental process. 8) to protect public health interest of local citizens by coordinating with community leaders and sub-district administration office, encourage planning and action to improve public health in the village (Department of Health Support Service, 2011). Further to above mention responsibilities, it was said that village health volunteers were important personnel to improve public health and quality of life among villagers. They; therefore, should be trained and educated to be able to do their job effectively.

Further to the literature review, most stroke patient researches were to study patients in hospitals, caregivers at hospitals and homes, but the study with village health volunteers was not available yet. For instance, Jaruek Thaneerat had studied the effect of referring towards the ability to take care of stroke patient and found that caregivers had got higher score after the referring (Thaneerat, J., 2002). The study of effect of family support program towards stroke patient's adjustment by Veena Limsakul had found that senior stroke patients with family support had statistically and significantly better adjustment than patients without family support with P = .01 (Limsakul, W., 2002). The study of quality of life of family with chronic diseased seniors by Pinnares Kasudom pointed out that if we wanted to promote family role, we had to provide knowledge about disease and how to prevent complications, along with proper and continuous support from medical professionals (Kard-udom, P., 2006). The study of supportive and educational nursing effect towards stroke patient health care by Nipapat Patarapongbundit et al had showed that stroke patient in test group received supportive and educational nursing had got statistically and significantly higher ability to provide health care than the control group with P = .01 (Pattarapongbundit, N., Wonghongkul, T. & Punya, P., 2007). The study of influencing factors towards home care behavior of stroke patients' relative by Pornpat Im-oat had showed that nurses and health care providers should have focused on relative's ability to provide home care, and influencing factors included social support, decease seriousness, daily care duration and knowledge about home care. It was advised to develop referring program for stroke patients and set up home care standard focusing on daily care provision, accident and complication prevention and social service to provide continuous and effective care (Imoat, P., Nimitanon, N., Kamsorn, S. & Hemathorn, J., 2009).

In Suphanburi, further to statistic data from Suphanburi public health office had showed that there were 3,355, 4507 and 3,965 stroke patients at home in 2009-2011 respectively. At present, these patients lived at home and were taken care by sub-district health promoting hospitals. The problem, somehow, was limited number of staff to provide sufficient health care. It was needed to recruit village health volunteers to support, and in 2011, Suphanburi province had recruited 14,910 village health volunteers (The Office of Policy and Planning, Suphanburi, 2011).

The researchers, therefore, had arranged stroke-educating program to improve these volunteers' ability, knowledge and skill in providing health care service to villagers.

Research Objectives

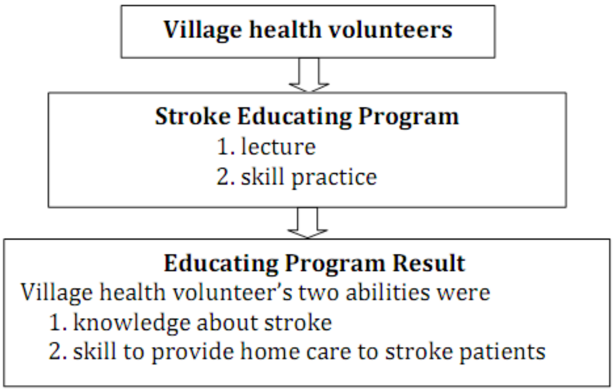
This research aimed to study the effect of stroke educating program towards village health volunteers' ability to provide home care service.

Research Questions

The research attempted to review how stroke educating program affect to village health volunteers' ability to provide home care service.

Research Scope

The researchers had applied the concept of providing home care for stroke patients by Neurological Institute and Malkom Knowles' Androgogy Theory which were the art and science in helping adult to learn and consisted of 1) self-concept; Adults were physically and mentally mature. They had high self-concept and had developed self-independence. So they were self-confident. 2) Experience; Adults had earned various experiences and become precious source of learning. At the same time, they possessed extensive foundation to learn new things. 3) Readiness; Adults were ready to learn when they perceived something was essential for their social role and status. 4) Orientation to learning; Adults assumed problems as learning centers which led to knowledge application.(Knowles, Malcolm, S.,1980) Since village health volunteers were subject to take care of local people's health, knowledge they learned about was essential to apply with stroke patients with home care. It was considered a critical role of these volunteers to take action. Most stroke patients still had some disability that affected to their mental and physical health and the society. They could not help themselves in routine activities and depended on caregivers. The stroke educating program included educating knowledge about stroke, complication, preventive guideline, home care procedure, knowledge about healthy food for stroke patients, physical therapy, therapeutic activities, pressure sore preventive action, soaking preventive action, liquid diet or NG feeding and preparation. The program enable village health volunteers to provide better health care for home care stroke patients.



Research Scope

This research was the one group pre-post test design to study the effect of stroke educating program towards the ability of village health volunteers to provide home care service for stroke patients in Suphanburi province. Data was collected during September 2012 to March 2013.

Definition Term

Stroke educating program means activities to educate knowledge about stroke, its complications, preventive action and home care procedure, knowledge of healthy diet for stroke patients, physical therapy and therapeutic activities, preventive action training and taking care of pressure sore, soaking prevention, liquid diet or NG feeding and cooking liquid food.

The ability of village health volunteers to provide home care for stroke patients means required knowledge and skill to take care, help and advise patients and caregivers how to treat and recover stroke, complication prevention, physical and mental recovery.

Home care stroke patients mean patients suffering from stroke that had disability problem and received care at home.

Research Methodology

This research had studied the effect of stroke educating program towards the ability of village health volunteers to provide home care service for stroke patients during September 2012 to March 2013.

Population and Sampling Group

Population

14,910 village public health volunteers in Suphanburi province.

Sampling Group

15 village health volunteers recruited by multi-stage random sampling method that divided into

Step 1; the application of cluster sampling method came up with 5 sub-districts out of 20 sub-districts namely Pohphraya, Sanarmchai, Phiharndaeng, Ruayai and Barnpoh sub-district.

Step 2; the application of simple random sampling method came up with 3 volunteers from each sub-district or total 15 volunteers, age 20-60 years old, literate, never been trained on stroke home care and were willing to participate in the training.

Research Tools

1. Applied tools to collect data included;
   1.1 Volunteer's personal data questionnaire was used to collect data about gender, age, marital status, education, religion, income and occupation, status in the family, congenital disease and experience in providing health care.
   1.2 25 items test of knowledge about stroke developed by researchers
   1.3 35 items assessment test to evaluate volunteer's ability in providing health care for stroke patients
2. Applied experimental tools included two-day stroke educating program provided to village health volunteers. On the first day, the lecture included an hour of lecture about stroke, its complication, preventive and health care procedure by APN nurse who specialized in stroke, an hour lecture about diet for stroke patients by a nutritionist from Chaophraya Yommaraj Hospital, an hour lecture about physical therapy for stroke patient by a physical therapist from Chaophraya Yommaraj Hospital, an hour lecture about therapeutic activities for stroke patient by 2 occupational therapists and an hour workshop of preparing liquid diet by 2 nutritionists from Chaophraya Yommaraj Hospital.

Content Validity and Reliability Testing

1. **Tools to collect data**
   1.1 Volunteer's personal data questionnaire were verified by 5 interdisciplinary stroke specialists and 2 teaching advisors at Chaophraya Yommaraj Hospital in term of content validity and conformity. IOC of the questionnaire was .99 and then revised according to advisor's suggestion.
   1.2 25-item stroke knowledge assessment and 35-items skill assessment test developed by researchers were verified by 5 interdisciplinary stroke specialists and 2 teaching advisors at Chaophraya Yommaraj Hospital in term of content validity and conformity of questions and research objectives. IOC of stroke knowledge assessment was .98. Stroke assessment was applied with 30 volunteers who passed stroke-training program and analyzed with KR 20 formula that came up with reliability of .86.
   1.3 35-item skill assessment test was verified by 5 interdisciplinary stroke specialists with reliability of .99 and revised according to their suggestion. The test was applied with 10 volunteers who passed stroke training in order to calculate reliability of the test and revised accordingly later.

2. **Research Applied Tools**

Stroke Educating Program and 35-items skill assessment test, which are developed by researchers, were verified by a physician, a physiatrist, a physical therapist, an occupational therapist, a nutritionist, a stroke unit administrative nurse and 2 teaching and research advisors from Suphanburi Rajchachonnanee Nursing College.

Data Collection

1. Data collection approval by the director of sub-district health promoting hospital.
2. Discussion of researchers about how to arrange program and collect data
3. Coordinating with sub-district health promoting hospital to provide the program to 15 volunteers, testing their knowledge and assessing their skill of stroke before and after the program
4. Statistics Analysis

Sampling Group Empowerment

1. Researchers introduced themselves, explained research objectives, steps and detail of the test and data collection. They finally allowed question and answer section for any query.
2. Researchers explained the right to accept or deny participation or withdrawal during the research to participants and asked them to let them know for any inquiry.

3. Participants signed consent to participate with the research.
4. Researchers were subject to respect participants' privacy and suspend the research in case participants needed to do routine activities.
5. Participants reserved the right to conceal some information and inquired about and review the research data throughout the test.
6. Proposal and research report was present in overall findings.

Data Analysis Result

Section 1: The Analysis of Participants' Personal Data

It was found that all of participants were female, age less than 30, 31-35, 36 - 40, 41 - 45, 46 - 50 and more than 50 at 20, 13.3, 13.3 and 13.3 percent respectively. 73.3 % of them were married. 66.7 % of them were primary graduated. All were Buddhist. 80 % of them earned 5,001-10,000 baht a month. 60 % of them worked as farmers. 60 % of them were family members and the others were family leaders. 80 % of them were not congenital diseased, and all of them had never provided care to stroke patients.

Section 2: The Analysis of pre-test and post-test knowledge and skill score of village health volunteers in providing home care service to stroke patients.

Table 1.

Pre-test and post-test mean average and standard deviation of knowledge and skill scores of village health volunteers (n=15)

The Ability of Village Health Volunteers	Knowledge score			
	Pre-test		Post-test	
	$\overline{X}$	S.D.	$\overline{X}$	S.D.
1. Knowledge of stroke	17.5	1.767	23	1.46
2.Skill to provide health care for stroke patients	76.27	11.32	172.87	3.44

Table 1 shows that pre-test and post-test knowledge score of volunteers were 17.5 5 ($\overline{X}$ =17.5,S.D.= 1.77) and 23 ($\overline{X}$ =23.00,S.D.=1.464). Pre-test and post-test mean average of skill to provide health care of volunteers were 76.27 ($\overline{X}$ =76.27, S.D.= 11.32) and 172.87 ($\overline{X}$ =172.87,S.D.=3.44).

Table 2.

The Comparison of Pre-test and Post-test Mean Average and Standard Deviation of Knowledge and Skill Scores of Village Health Volunteers with T-Test Method (n = 15)

Ability of Village Health Volunteers	Pre-test Score		Post-test Score		T	p
	$\overline{X}$	S.D.	$\overline{X}$	S.D.		
1.Knowledge of Stroke	17.533	1.767	23.00	1.464	-12.568	.000**
2.Skill to provide home care for stroke patients	76.27	11.32	172.87	3.44	-33.017	.000**

***p < .01*

Table 2 shows that knowledge and skill mean average values of volunteers were higher after the test with statistic significant value .01.

Discussion

When comparing pre-test and post-test mean average of knowledge and skill with t-test method, it had found that knowledge and skill Mean average values of volunteers were higher with statistic significant value .01. This was because the provided program was suitable for adult learning style. Participants had self-concept. They were both physically and mentally mature and possessed high maturity, self-concept, and ability to lead them. In addition, they were experienced and precious source of learning with extensive foundation. They were ready to learn new things because they perceived that the program was essential for their role and task to provide home care for stroke patients. In term of orientation to learning, these volunteers were adult adhered to problem as the learning center. They were willing to apply the knowledge with their job immediately. Our findings were conformed with Malcom Knowles' andragogy theory which was the art and science to enable adults to learn. Furthermore, the study by Jaruek Thaneerat about the effect of referring towards stroke patient caregivers' ability had pointed out that ability score of caregivers were higher after the referring.

Suggestion

The program should be used to educate village health volunteers in order to provide knowledge, skill and ability to provide home care for stroke patients appropriately. Further study should study about quality of life and ability to do routine activity of stroke patients at home after the care of these volunteers.

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Attitude towards Royal Project Flower Selling of Entrepreneur at Pak Khlong Talat, Bangkok

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Abstract

The study "Attitude Toward Royal Project Flower Selling of Entrepreneur at Pak Khlong Talat, Bangkok" is a qualitative research. The objectives were 1.) To study attitude and satisfaction toward royal project flower comparing between product and its price, 2.) To compared royal project flower to other business, and 3.) To study marketing environment in terms of competition in the business. An in-depth interview was used to collect information from the shop owners as a key informant. The results showed that the royal flower's owners had a good attitude toward selling the royal project flower because of its long life, fresh color, and longer stalk. In addition, the market share was quite low because there was less shop, the shop owners had to come outside to get flowers by themselves, and the price was slightly higher than other normal flower shops in the market. However, the owners still choose to sell royal project flower as they saw that it has a good quality and good duration. Thus, the owner should establish an association who serve them on picking up the flower at place, and to build a store instead of sidewalk shop. They also should include a shop sign to show name and logo of the royal project clearly.

Keywords : Attitude, Royal Project Flowers, Entrepreneur

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Introduction

It is well known that in the area of northern Thailand. The most of mountain is complex and cold which is appropriate for the cultivation of some plants like cold weather. It also becomes a residence for the hill tribe villages. Originally, the Hill Tribe was in poverty and most of them cultivated opium. This causes a problem about deforestation. It is important that drug problems are prevalent from rural communities to the city and became a major problem in the country in that period. Before the Royal Project Foundation of the establishment. His Majesty the King goes to the hill tribe villages. He found many problems. Therefore, he supports the research of wood results in winter cities. 2 hundred thousand baht. Support of research of the University of agricultural sciences, DOI Pui in Chiang Mai (now called the garden of two hundred thousand). And his grace ordered. Corps considered for assistance. As a result, many international attention and assistance in the delivery of different kinds of plants to be grown. May since 2512, (The Royal Project Foundation: 2534)

The current project is now expanding widely. Both the research and promotion of various crops productivity from the Royal project, consisting of. Vegetable toxins safely. Herbs, nuts and cereals, fruits, mushrooms, flowers, winter cities. Forest productivity, fisheries productivity Dried flowers The vetiver, wood products, processed products, and the flower pot in the trade name. Capital projects and DOI KHAM by selling both domestically and internationally. Under DOI Kham brand trademark Chiang Mai University which transported from various markets to send to the Hill in Bangkok and Chiang Mai market. Moreover, there is also a part for a ready-made food factory of capital projects. Amphoe Fang, Chiang Mai Province Chiang Rai province and Kasetsart, Chiang Mai University Faculty. Fruits, vegetables, flowers and plants in various cities throughout the year have been sold, and winter is the most widely known. In spite of that recently. High area return become a special area is an area that is beneficial to the country as never before, the unexpected (Royal Project Foundation: 2534 (1991))

Under the brand, which is part of the Doi Luang project has a wide range of products that will be a fresh fruit and vegetable and flowering Bushes are also processed products in various forms, whether it is fruit juice fruit jam honey herbal products frozen, under various kinds of brands Doi that word has continued to research and develop products that make it possible to have high quality products. (Doi KHAM:2555).

The flowers winter flowers Royal Project Foundation, Royal Project has various types such as chrysanthemum, rose, flower Dredd Goodyear Heights, Anthurium, a candle flame, City and State, etc. The dried flowers are available throughout the year, such as the golden finger grass, rattan ball, Venetian blinds, star geostationary, cotton dust, Gold tassel, candles, flowers, etc. The project is under cultivation, which is different from the business generally. And sales of a great people and a lot of popular (Book 38 Route 38 Royal Project I: 2554).

For this reason, studies with interested to study and satisfaction of the operator brings the flowers of the capital project sales. To know about the quality and suitability to the price. When compared to other products, from flowers.

Objectives

1. To study suitability and customer satisfaction with the products quality of highway project between flowers price.
2. To study the comparisons between products, flowers, floral products and other business capital projects.
3. To study the market conditions in the race area, flower sales. Pak Klong market located in Bangkok.

Scope of the Study

In this study, the researchers identified the research boundary as follow:

1. Content: a study on customer satisfaction of entrepreneurial florist offers flowers from capital projects to sell at the Pak Khlong Talat.
2. Geography: the target location is at Pak Klong Talat, ban Mo road, Wat Ratcha baphit in Bangkok.
3. Period: the researchers collected and analyzed the data from November 2012 to February 2013, totally 4 months.

Expected Advantage

1. Make an understanding about attitude which makes the entrepreneurs decide to buy Royal Project flowers.
2. The flowers of Royal Project help gaining more benefit for the entrepreneurs of flowers comparing with other flower business.
3. The research results can become a strategy for the entrepreneurs and the market to enhance the business and to become the biggest flower selling market in Thailand.

Research Methodology

The study of attitude towards Royal Project flower selling of entrepreneurs in Pak Khlong Talat, Bangkok was conducted as qualitative research by collecting data from literature review, articles, research report, other information sources in the Internet, as well as related theories. This data will be analyzed with entrepreneur's interview results in order to find the best way to study the customers as seen in the following step:

1. Study from the document and the Research study details and information about the project consists of backgrounds and objectives for the Royal Project Foundation and education condition of entrepreneurs selling flower market canals. From journal writing a documentary.
2. Entrepreneurs selling flowers Highway projects the research has made to ask questions talk to entrepreneurs inside. flower shops Royal Project about attitudes of the flower shop Royal Project

This research is qualitative research. An in-depth Interview is applied during a discussion between the researchers and the entrepreneurs about the attitude towards Royal Project flower selling.

Results and criticism

As the results of the study, it can be concluded that Entrepreneur sells fresh flowers have a positive attitude towards the flowers from the Royal Project within their store. Because of its beauty and fresh, the flowers are bright and can be stored for a long time without trauma or wither easily. Meet the needs of those who come to buy flowers from the store. Or use to decorate the space around the work to be beautiful. The flowers, which are components of the event are stored in the look of the flowers is important. But most of the time. The flowers used in the decorations will wilt very colorful, not pretty. Branches bend, do not look fresh. The flowers from the Royal Project is not the case. Feedback from the people who come to buy flowers and have satisfied the requirements of the flowers I did not fall off. Flowers of projection operators have a positive attitude towards the flowers to sell. The results do not agree. More profitable. And no negative comments from buyers.

However, the problem of capital projects is that selling flowers is not an easy management because all the flowers from the North are brought to the Bang Khen area only. This cause and inconvenience for the sellers to proceed. By comparing with other private flower selling business, there is a daily and immediate flower delivery to Pak Klong Talat. So, the sellers don't have to drive for a long way to get the flowers. According to this problem, it increases the capital of Royal Project flower selling.

Conclusions

The result of the study shows that the project Highway flowers are of good quality with a nice and fresh flowers are the characteristics of the light colors. and to meet the needs of those who come to buy flowers from the shop current response from those who come to buy flowers satisfaction and needs flowers from Highway projects are not OK. Most of the main purpose of the purchase, and then flowers Royal Project is intended to lead to a bouquet of flowers or create booth for the work activities, or used to decorate the area around the area to the beautiful

Many shops selling flowers Royal Project has a volume of less than private business Selling flowers, the competition of florist shop each high and low with a share of the market they have the choice to purchase flowers from private business more than

Suggestions

1. Suggestions from the research

From education. Several capital projects, flower shop operators, the store found that entrepreneurship capital projects sales of flowers; it should establish a capital project Florist Association Group. In order to achieve a more comfortable and can also help reduce the cost of transport of the flower project. As well as comfortable and may cause other suppliers are interested in selling flowers increased capital project.

From the survey. Stores selling flowers, capital projects as a floating panel. There is no label stores. There are no explicit trust branded as capital project flower. And should stick to the name of the flower, with prices clearly. Best entrepreneur should have a uniform set of capital projects to enter to achieve the best image to customers and have a good attitude.

The price is the most important factor to buy flowers. Because of the high prices, if there are flowers too far may result in customers buying flowers from a private business rather than buy flowers from a capital projects. Because, even though it is expensive to little, but buyers will buy flowers, quality and high durability.

2. Suggestion for further research

1. Explore the area selected should be a number of florist Royal Project more than this or go to the source station Highway agricultural production, flower in Amphoe fang, Chiang Mai, Royal agricultural Inthanon station Chiang Mai Province to get information that is different from view.

2. The research group population should be changed from an entrepreneur to a consumer point of view in order to study more about the difference issue. As well as another attitude about buying Royal Project flowers as a customers.

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Factors Correlated with Mothers' Behaviors on Oral Health Care for their Children in Central Java, Indonesia

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ABSTRACT

This study aims to examine the correlation among mothers' behaviors and their related factors regarding oral health care for their children. This cross sectional study employed a multi-stage sampling approach for sample selection. Samples were mothers of children who were 6-9 years old and residents of Kudus district, Central Java, Indonesia. A total of 240 mothers were recruited to participate in this study. Health Belief Model (HBM) was applied for a conceptual framework. Questionnaires consisted of items related to mothers' characteristics, mothers' perceptions and mothers' behaviors related to oral health care for their children. Data were analyzed using descriptive statistic, Pearson Product Moment Correlation Coefficient, independent t-test and ANOVA.

The results were; a) there was positive significance correlation among perceived susceptibility, perceived severity and perceived benefits of oral health care ($p < .01$) but negative significance correlation with perceived barriers ($p < .01$); b) mothers' behaviors had positively significant correlations with perceived susceptibility, perceived severity, perceived benefits ($p < .01$) but negatively significant correlation with perceived barriers ($p < .01$); c) there were no significant differences among mothers' age, level of education, family income, children age, gender of children and number of children in the family regarding to mothers' behaviors on oral health care for their children. The occupation of mothers had significant difference with mothers' behaviors on oral health care for their children. It is concluded that mothers' behaviors on oral health care of their children are influenced by their perception to oral disease. Therefore, health care providers should provide oral care information to mothers of young children to enhance their perception of susceptibility, severity, and benefits of oral health care for their children.

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Introduction

According to report by the World Health Organization (WHO) oral health is one of the major global public health problems in the 21st century, affected 60-90% of school children, and is considered a chronic health problem particularly amongst developing countries in Asia and South America (WHO, 2012; Dixit, Shakya, Shrestha & Shrestha 2013). A study in Indonesia showed 76.2% of 12-year-old children in the population suffered from dental disease in 2001. Furthermore, the prevalence was increased to 85% in 2004 (NSES, 2001; NSES, 2004). MoH Indonesia (2007) reported 6.9% of children (age 1-4 years), 21.6% (age 5-9 years), and 20% (age 10-14 years) suffered from oral health problems (MoH, 2007). This significance number indicates the seriousness of the oral health problems and may carry adverse impact of chronic oral disease into their adulthood.

There are many factors contributing to oral health problems including diet and sugar consumption, poor oral hygiene practice, low socio-economic status, inadequate education and knowledge about oral care, culture, mother's beliefs and attitude (Pine, Goldrick & Burnside, 2000; Adair, Pine & Burnside, 2004; Poutanen et al., 2007). Previous studies mentioned that, parents' attitudes bore significant influence on their children's incurring dental caries and gingivital health (Okada, Kawamura & Miura, 2001; Szatko et al., 2004). Children are more likely to imitate their parents' health practice and health behavior. Therefore, the role of mothers as caregiver is important in order to promote oral health and to prevent their children from incurring oral health problem (Pacharuniti, Sithan, Phenkhae & Booyong, 2004; Saied-Moallemi, Murtomaa, Tehranchi & Virtanen, 2007).

One of the theories which has been widely applied to explain and predict health behavior, focusing on individual's attitudes and beliefs, is the Health Belief Model (HBM) (Rosenstock, 1966). The HBM was applied to examine mothers' knowledge and attitude that bear influence on her children's dental health, focusing on the mothers' behaviors relating to oral health prevention and oral hygiene practice of her children (Pirate, 2006; Saied-Moallemi, Vehkalahti, Virtanen & Murtomaa, 2008; Cinar, 2008). HBM composes perceived susceptibility, perceived severity, perceived benefit and perceived barrier which influence the behavior change in the individual (Glanz, Rimer & Lewis, 2002; Turner, Hunt, DiBrezzo & Jones, 2004).

Information relation to mothers' behaviors on oral health care for their children is important. Mothers of parents are responsible for providing suitable care for their children during the time when they are still too young to take care of their children. However, study of mothers' behaviors in providing oral health care for her children has so far been limited. There remain some unclear factors that influence mothers to promote and improve their children oral health care and hygiene particularly in Indonesia.

Methodology

Cross-sectional method was applied to examine the hypothesis in this study. Questionnaires consist of a) mothers demographic characteristics and children, b) mothers perceptions on their children's oral health care developed by Buglar, Khaterina, Robinson & Natalie, (2010), and c) mothers' behaviors on children oral health care develop by Sharda and Shetty, (2008). The result of the reliability test in this study showed perceived susceptibility (α=.76), perceived severity (α=.88), perceives benefit (α=.83), perceived barrier (α=.88) and mothers' behaviors on oral health care (α=.75).

This study was conducted in Kudus district, Central Java, Indonesia which number of sample was 240 mothers calculated by G-power software using α err prob: .05 and power (1-β err prob: .80). A multi-stage sampling method was adopted for sample selection due to the concern of condition differences between urban and rural area. Data collection was done after the researcher got approval from the Ethical Review Board (ERB) committee of Boromarajonani Collage of Nursing Nopparat Vajira (BCNNV-Bangkok Thailand) and permission from the National Unity and People's Protection (NUPP) of Central Java, and Ministry of Health (MoH) Kudus District. Data were analyzed using a computer software program including percentage, mean, SD, Pearson Product Moment Correlation Coefficient, independent t-test and ANOVA.

Result

Demographic characteristics of respondents show about 50.4% whose were between the ages 25-34 years old with a mean of 34.48 (SD=6.62), worked as a housewife (46%) and had graduated from elementary school (40%). Furthermore, 59.2% of the families had an income of less than IDR. 1,000,000, per-month at mean 1.68 (SD=1.02). Children's characteristics show 57.5% were female, aged 7 years old (31.2%) with a mean of 7.57 (SD=1.08) and more than 80% of the families have 1 child in the household.

TABLE 1.
Distribution of Mothers' Perceptions

Level of Perceived	Perceived Susceptibility		Perceived Severity		Perceived Benefits		Perceived Barriers	
	f	%	f	%	f	%	f	%
Low	126	52.5	92	38.3	110	45.8	176	73.3
Medium	60	25.0	79	33.0	66	27.5	53	22.1
High	54	22.5	69	28.7	64	26.7	11	4.6

The study found 52.5% of the respondents had low level of perceived susceptibility with a mean of 11.45 (SD=4.62). About 38.3% had low level of perceived severity with a mean of 25.79 (SD=8.28), and about 45.8% of mothers had low level of perceived benefits with a mean of 11.99 (SD=4.45). Furthermore, 73.3% of them had low level of perceived barriers with a mean of 23.06 (SD=7.08) (Table I)

TABLE 2.
Differences of Mothers' Behaviors in Area of Resident

Mothers' Behaviors	Area of Resident			
	Urban (N=146)		Rural (N=94)	
	f	%	f	%
Need to improved	24	16.4	12	12.8
Moderate	57	39.0	41	43.6
Good	65	44.6	41	43.6

The result showed that 44.6% of mothers in the urban area had good score of behaviors on oral health care for their children. Almost a half of mothers (43.6%) in the rural area had score at moderate level and a good level. Furthermore, mothers' behaviors relating to attending a dental visit showed 33.8% of respondents never visit the doctor in the dental clinic. However, 66.2% of the mothers had taken their children to dental visits because of treatment (29.6%), routine check-up (25.8%) and children's illness (10.8%) (Table II).

TABLE 3.
Correlation between Mothers' Perceptions and Mothers' Behaviors on Oral Health Care

	1	2	3	4	5
Susceptibility	1				
Severity	.491**	1			
Benefit	.447**	.253**	1		
Barrier	-.150*	-155*	-.182**	1	
Behavior	.251**	.215**	.287**	-.498**	1

*** p-value < .01 (2-tailed).*
**. p-value < .05 (2-tailed).*

The results showed there were positively significant correlations between perceived susceptibility, severity, and benefits on oral health care for their children, but negatively significant with perceived barriers at p-value .01. Furthermore, correlations between mothers' perceptions and mothers' behaviors on oral health care were positively significant at p-value .01. Perceived benefits had higher r-value (.287) when compared with perceived susceptibility and severity (.251 and .215 respectively). Furthermore, perceived barriers had a negatively significant correlation with mothers' behaviors on oral health care for their children at p-value .01 (r= -.498).

TABLE 4.
Comparison Mean Score of Mothers' Demographic and Mothers' Behaviors

Variables	N	Mean	SD	F-value	df	p-value
Mothers' age						
< 24 years	12	2.00	.739			
25-34 years	121	2.32	.698	.911	3	.436
35-44 years	86	2.31	.690			
> 45 years	21	2.19	.873			
Education levels						
Low education	96	2.23	.761			
Medium education	69	2.29	.688	.859	2	.425
High education	75	2.37	.673			
Occupation						
Housewife	111	2.35	.696			
Labor	73	2.10	.748	4.28	2	.015*
Employee	56	2.43	.657			
Family income						
Low income	142	2.23	.748			
Medium income	79	2.39	.649	1.51	2	.221
High income	19	3.37	.684			
Children's age						
6	47	2.38	.739			
7	75	2.20	.697	.713	3	.545
8	53	2.30	.723			
9	65	2.32	.709			
Number of children						
1	204	2.31	.707			
2	33	2.18	.727	.453	2	.636
3	3	2.33	1.15			

The mean scores of Mothers' behaviors aged 25-35 and 34-44 years old were almost equal (2.32 and 2.31 respectively) at p-value .43. Mothers who high education had a slightly higher mean score compared with those mothers had low and medium education (2.37, 2.23, and 2.29 respectively at p-value .42). Furthermore, high income mothers had a higher mean score compared with low and medium income (3.37, 2.23, and 2.39 respectively at p-value .22). Meanwhile, mothers with children aged 7 years old had a lower mean score compared with mothers of children aged 6 years old (2.20 and 2.38 respectively) at p-value .54. Mothers with 3 children were more likely to have a higher in mean score (2.33) at p-value .63. In contrast with another variable, the occupation of mothers' was a statistically significant difference in oral health care behaviors at p-value <.05 and F-value 4.28. Mothers who worked as employees were more likely to have higher mean scores (2.43) compared with housewife and laborers (Table IV).

TABLE 5.
The Differences between Children's Genders and Mothers' Behaviors on Oral Health Care

Gender of children	N	Mean	SD	t	df	p
Male	102	2.31	.744	.411	238	.174
Female	138	2.28	.692			

The result showed there was no statistically significant difference between genders of children regarding mothers' behaviors on oral health care for their children at p-value .174. The mean score between male and female was almost similar (2.31, and 2.28 respectively) (Table V).

TABLE 6.
The Differences between Mother Residential Area and Mothers' Behaviors on Oral Health Care

Mothers Residential Areas	N	Mean	S.D	t	df	p
Urban	146	2.28	.731	-.293	238	.409
Rural	94	2.31	.688			

The findings showed there was no statically different between mean score of mothers' behaviors living in rural and urban areas. However, the mean score of mothers' behaviors who were living in a rural area was higher (2.31) than the urban area (2.28).

Discussion

A. *The Correlation between Component of Mothers' Perceptions*

The results show a positively significant correlation among perceived susceptibility, severity, and benefits but, negatively significant correlation with perceived barriers (p<.01). This result is similar to another study (Glanz, Rimer & Viswanath, 2008). HBM theory mentioned that correlation between perceived susceptibility and perceived severity namely perceived threat (Glanz et al., 2008; Sharma and Romas, 2012). This can be explained that susceptibility is a person's perception to vulnerable disease. The higher a person's perceived vulnerability to the disease, the easier it will be for them to suffer from the disease and its consequences.

Regarding perceived barriers, this finding indicated that when mothers increased their perceived susceptibility, severity and benefits, their perceived barriers were more likely decrease. This can be explained that people are more likely to behave when their perceived susceptibility, perceived severity, and perceived benefits are greater for their daily life. Likewise, if people's perceived barriers are greater, behaviors will be reduce because perceived barriers are an obstacle to change in people's behaviors (Rosenstock, 1966; Strecher and Rosenstock, 1997; Glanz et al., 2008).

B. *Correlation between Mothers' Perceptions and Mothers' Behaviors*

The result shows positive significant correlation among perceived susceptibility, perceived severity, perceived benefits and mothers' behaviors on oral health care for their children (p< .01). The perceived seriousness of illness depends on the extent to which an individual pays attention to the harmfulness of an illness (Rosenstock, 1966 and Teyi, Siew, Wu & Peggi, 2004). Increasing perceived susceptibility and perceived severity of people were more likely to increase their behaviors to promote healthy life and prevent the disease (Vakili, Rahaei, Nadrian & YarMohammadi, 2011). This result is contrasted with studies in Thailand and Taiwan (Pacharunit et al., 2004; Chen et al., 2011) that found no significant between mothers' perceptions and mothers' behaviors for their children.

Findings of this study reveal negatively significant correlation between mothers' perceived barriers and mothers' behaviors on oral health care for their children at p< .01 and r = -.49. This finding is consistent with previous studies (Taymoori et al., 2009; Vakili et al., 2011; Mohamadian et al., 2011). There are barriers interfering with oral health care of children including children forgot to brush their teeth twice a day (11.9%) and children were lazy about brushing their teeth particularly when they were tired (11.6%). This result is similar to the study in Indonesia that 93.8% of children in Indonesia did not brush their teeth properly (MoH Indonesia, 2007). In this case, mothers were expected to remind, supervise and monitor their young children in practicing oral health care.

Differences between Demographic Characteristics and Mothers' Behaviors

Age and education level are interrelated. The higher people's age, education level will increase and people are more likely to acquire knowledge, education and experience regarding oral health care (Efe, Sureyya & Kamile, 2007). This study found no significant differences in the mean scores between age, education level and mothers' behaviors on oral health care. This result is similar to a study in India (Sreeramareddy, Sathyanaraya & Kumar, 2012). The absence of the differences probably because mothers lived in the same area (Kudus district) with the same information from media such as television, radio and billboard, which is easily accessible to all people (Kudus District Government, 2012). The better access to information, the greater the increase in knowledge and behavior would be (Pacharuniti et al., 2004).

Occupation of mothers shows there was significant difference between mothers' occupation and mothers' behaviors on oral health care for their children. This can be explained that mothers who worked as laborers had limited time to provide oral health care for their children. They spent most of their time outside home. This finding is consistent with previous studies (Mofidi, Zeldin & Rozier, 2009; Chen et al., 2011). A study in Saudi Arabia mentioned 32.6% of 917 children brush their teeth under parent supervision Tagoo et al., (2012). Mothers had limited time and afford to take care their children's oral care, the oral health care of their children would be reduced.

There were no differences in mean score between family income and mothers' behaviors on oral health care for their children. This finding is contrasted with previous studies (Kelly, Catherina, William & Bruce, 2005; Chi and Seelay, 2013). Indonesia government's policy is to provide a free dental checkup in every Public Health Services (MoH Indonesia, 2007). This program was expected that people who live in the low economic status can obtain oral health care services and treatment. Therefore they are able to seek support for equipment and other oral care services.

The age of children has no significant difference mean score with mothers' behaviors on oral health care. This can be explained; mothers were not aware of the importance of oral health care for children. This reason supported by a study in America that mothers did not recognize the importance of oral health care in their children because they assume that baby teeth would eventually fall off and do not have any influence on nerve endings (Mofidi et al., 2009; Kelly et al., 2005).

The gender of children did not show significant difference in mean score of mothers' behaviors on oral health care for their children. It explained that a mother will try her best to provide behavior care for her children regardless of whether children are male or female. A previous study found differences between males and females on their dental care behavior, with females having better behavior than male (Peres et al., 2011).

There were no differences in mean score between number of children and mothers' behaviors. It is probably because mothers had the same experience, perceptions and knowledge on oral health care for their children. This result is similar to a study in Thailand (Pacharuniti et al., 2004) that found mothers provide a similar level of good oral care for all their children in the household.

Differences between Urban and Rural Area

The result showed no significant difference between mothers' residence (urban or rural area) and mothers' behaviors on oral health care for their children. Both mothers in an urban and a rural area are responsible to providing oral health care for their children. This findings contrast with MoH Indonesia, (2007) that oral health problems in urban area were greater than rural area. It is because of differences in geographic, utilization health care services and behavior on oral health care. However, recently health care services in Indonesia have been extended equally in urban and rural area where information was made to be available for public. Public Health Care (PHC) which is available in every sub-district has provided health care services including dental care. Equitable distribution of health care services in urban and rural areas may lead to behavior uniformity of mothers in providing oral health care for their children.

Limitations of this study include 1), self-administered questionnaires were conducted. Furthermore, the researcher could not observe, control and ensure that results from the questionnaire could provide the actual behavior of mothers in household. 2), oral health care questionnaires only focus on dental brushing activity in children. Dental flossing is not a measure as it uncommonly used in Indonesia. (3), the majority respondents were low income mothers, therefore the findings are limited as a generalization to all mothers.

Conclusion

This study focuses on mothers' perceptions and mothers' behaviors with school children from low income, living in Kudus district Central Java Indonesia. Data analysis shows that correlation among variables, there was positive correlation among perceived susceptibility, severity, benefits and mothers' behaviors on oral health care, but it was negatively correlated with perceived barrier ($p< .01$). Only occupation had different mean scores compared with mothers' behaviors. Therefore, there was no difference between mothers' living in urban and rural areas with respect to their behaviors on oral health care for their children. Results from this study recommend that 1) data mush be shared as a source for community to nursing lecturers and students to better understand the utilizing HBM as one of the behavior-prediction theories in oral health care, 2) mothers' behaviors and awareness of taking children to dental visits regularly should be focused on in future research, 3) planning on providing good oral health campaign to improve oral health care for school children as well as their mothers, especially mothers who work as laborers should be implemented.

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Latent Class Analysis of Gender Difference in Perception of Foreign Language Anxiety

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Abstract

The present study examined foreign language anxiety in English undergraduate classes with the foreign language classroom anxiety scale (FLCAS) and learners' variables (gender and reading achievement) within the framework of latent class analysis. The present study aimed to examine stability of factor structure of FLCAS and applicability of latent class analysis to investigate the existence of latent classes and interactions of latent classes with learners' variables. The data was first analyzed within the framework of the confirmatory factor analysis immediately following the explanatory factor analysis due to the inconsistency of the FLCAS factor structure.

Latent classes between foreign language anxiety and learner variables were later examined. Results showed that accounting for underlying structures of foreign language anxiety could add additional information about the interaction between foreign language anxiety and learners' variables. Implications of these findings were discussed to shed further light on FLCAS and language learning.

Keywords: factor analysis; FLCAS; gender difference; latent class analysis; reading achievement

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Theoretical Background

Since learning a second/foreign language has always been problematic for second-language learners, many researchers acknowledged the impact of affective variables (e.g., language anxiety, language aptitude, and motivation) on learning second/foreign languages (Gardner, Tremblay, & Masgoret, 1997; Krashen, 1985). Similarly, much effort has been given to investigate impacts of affective variables on second/foreign language teaching and learning and empirical studies attest to the impacts of anxiety in language learning (Aida, 1994; Horwitz, 1986, 2001; Horwitz, Horwitz, & Cope, 1986; Horwitz & Young, 1991; Macintyre & Gardner, 1989, 1991; Price, 1991).

Among the extensive body of research on the influence of language anxiety on language learning, the concept of foreign language-learning anxiety has been acknowledged and accepted as one of the most feasible one with the foreign language classroom anxiety scale (FLCAS), separating foreign language anxiety from other forms of general anxiety (Horwitz et al., 1986; Kimura, 2008).

To discern general language anxiety from those caused by foreign language anxiety, FLCAS taps only the communication apprehension, test anxiety and fear of negative evaluation. The FLCAS is a self-report screening instrument identifying degrees of foreign language anxiety within the academic context with 33 items and has been widely used across different cultures (Aida, 1994; Tsiplakides & Keramida, 2009; Toth, 2008; Park, 1984; Wu, 2010). Additionally, the reliability and validity of FLCAS have been well established (Aida, 1994; Horwitz, 1986, 1991; Rodriguez & Abreu, 2003). Such conciseness of FLCAS allows a high degree of usability in both language and anxiety research settings (Aida, 1994; Daly, 1991; Goshi, 2005; Toth, 2003; Matsuda & Gobel, 2003).

The internal consistency reliability, test-retest reliability, and construct validity of the FLCAS have been thoroughly validated (Horwitz, 1991; Horwitz et al., 1986; Rodriguez & Abreu, 2003). However, the construct validity of the FLCAS determined by exploratory factor analysis (EFA) is inconsistent with different factor structures across different learning contexts: two-(Matsuda & Gobel, 2003), three- (Horwitzet al., 1986; Toth, 2008), and four-(Aida, 1994; Perez-Paredes, 2000, 2001) factor structures for FLCAS. For instance, Matsuda and Gobel (2004) obtained a two-factor solution: general anxiety in an English classroom and English speaking anxiety. However, Aida (1994) obtained a four-factor solution and concluded that test anxiety was not related to foreign language anxiety as proposed by Horwitzet al. (1986). Furthermore, Aida (1994) suggested a four factor solution excluding items related to test anxiety from FLCAS in the Japanese language learner context. Perez-Paredes (2000, 2001) replicated Aida's study and extracted a four-factor solution. However, Toth (2008) validated a three -factor solution for the Hungarian version of FLCAS. Consequently, the three-factor solution of FLCAS requires empirically and theoretically cautious interpretations. If considering the cultural difference of the FLCAS, factor analysis should also be considered because it is known that factor structures may vary from one culture to another (Aida, 1994; Toth, 2008; Matsuda & Gobel, 2003).

Along with the identification of factor structure, learners' variables (gender and achievement) are also important background variables that have often been discussed in relation to foreign language anxiety. In terms of achievement, it was well known that there were dual facets of language anxiety (facilitating and debilitating anxiety) in regard to achievement (Scovel, 1978). Language anxiety sometimes facilitates achievement but in general debilitates achievement (Aida, 1994; Abu-Rabia, 2004; Chan & Wu, 2004; MacIntyre & Gardener, 1999; Saito & Samimy, 1996). For instance, Chan and Wu (2004) mentioned that learner's achievements were the potential sources causing foreign language anxiety. Studies (Horwitz, 2001; MacIntyre & Gardener, 1999) have shown that students with higher levels of foreign language anxiety perform poorly compared to less anxious students. Furthermore, it is also true that FLCA affects learners' achievement with other factors.

The relationship of the gender to foreign language anxiety is still inconclusive and inconsistent in the language anxiety research as different studies yield mixed results (Aida, 1994; Abu-Rabia, 2004; Bensoussan & Zeidner, 1989; Matsuda & Gobel, 2004; Shi & Liu, 2006). On one side, female learners experience more foreign language anxiety than male students (Abu-Rabia, 2004; Bensoussan & Zeidner, 1989). Abu-Rabia (2004) and Bensoussan and Zeidner (1989) suggested that gender is a stronger predictor explaining variance in language anxiety. On the other hand, studies (Aida, 1994; Matsuda & Gobel, 2004; Shi & Liu, 2006) find that there is no statistically significant gender difference in foreign language classroom anxiety.

Despite the substantial amount of research of the effect of gender on language anxiety, the majority of the studies mentioned above involved the mean-level differences with observed FLCAS scores. In other words, there has been a lack of research examining gender effects on language anxiety in the context of factor framework across either psychology or language learning fields. This study not only examined the factor structure of the Korean version of the FLCAS, but also investigatedthe impact of learners' variables (gender and reading achievement) within the framework of the latent class.

Method

Analysis Procedures

EFA was first performed to test original factor structure (Horwitzet al., 1986). The number of appropriate factor structures were determined by The eigenvalue-greater–than one rule (Kaiser, 1958), minimum average partial (MAP: Velicer, 1976), scree test (Cattell, 1966) and interpretability of the factors. In addition, the substantial threshold of the factor loading in each item was determined as .40 or greater (Goshi, 2005). After assessing reliabilities of the FLCAS with the Cronbach's alpha (α) measuring internal consistency, both factor structure and model fit were again estimated via the confirmatory factor analysis (CFA).

CFA was performed to identify the optimal model. In keeping with common practice, the model fits were evaluated by five indicators: the chi-squared statistic, the root mean squared error of approximation (RMSEA) (Browne & Cudeck, 1993), the comparative fit index (Bentler, 1990), the Tucker-Lewis index (Tucker & Lewis, 1973), and the Akaike information criterion (AIC) (Akaike, 1987). The chi-squared statistic was the most common fit test but was almost always statistically significant for models with large samples. A RMSEA of less than .10 indicated an acceptable fit, while less than .05 indicated a good fit. The CFI and TL values greater than .90 were acceptable fits, while values greater than .95 fit the data well. A lower AIC indicated a better fit among a class of competing models. The AIC did not assume a true model, but rather tried to identify the optimal model.

In the third analytical component, latent class analysis (LCA) was used to identify the participating students with similar patterns of foreign language anxiety. LCA provided the probability of a particular participant belonging to an unobserved latent class by assessing the pattern of observed responses. The parsimonious model (1-calss) was fitted first followed by sequentially increasing the number of classes to five latent class models, with the choice of the best fitting model based on three criteria: The Bayesian Information Criterion (BIC) statistical fit index (Raftery, 1995, 2004), with lower values indicating better model fit (Li & Nyholt, 2001); and entropy, in which values approaching 1 indicated clear delineation of classes (Celeux & Soromenho, 1996). All the analyses were implemented using both Mplus version 4.2 (Muthén & Muthén, 1998-2007) for the analysis and R program for graphs.

Participants

The participants of this study were 281 Korean college students enrolled in an introductory TOEIC class for four hours a week. This group consisted of 82 male and 199 female students. The average age of participants was 20.11 years old ranging from 19 to 29; 15.7% of them had experience studying abroad and 29.2 % (N = 82) were male.

Instrument

The current study used FLCAS which was developed to broaden the assessment of foreign language anxiety from the general anxiety (Horwitz et al., 1986). FLCAS consists of 33 items that measure three constructs representing communication apprehension, test anxiety, and fear of negative evaluation. The items were rated using a five-point Likert scale ranging from strongly agree to strongly disagree which were coded as 5 to 1. The possible range of score was 33 to 165. The higher score indicated more anxiety on the students' part. 9 negatively worded items (2, 5, 8, 11, 14, 18, 22, 28, and 32 items) were reversely scored.

Results

Descriptive Statistics

After examining the psychometric properties (e.g., internal reliability, factor structure, and model fits) of FLCAS, this current study first examined the mean difference between male and female students with respect to the total sum scores of FLCAS and each subscale (communication, test, and negative evaluation anxiety). Later, the unobservable subgroups within a current sample were examined with latent class analysis. The Cronbach's alpha (α) of the constructs of the FLCAS was investigated in order to measure the internal consistency of the items, as shown in Table 1. The Cronbach's alpha coefficients of the total and of each construct of the FLCAS were above an acceptable level of .70 (Nunnally, 1978, *p*.245), which implied that the full scale possessed excellent internal consistency (α = .93). Table 1 also examined if differences of foreign anxiety between male and female students were existed. Results showed that female students in general rated their own language anxiety significantly higher than male students ($t = -4.05$, $p < .01$). More specifically, differences in communication and negative evaluation between male and female students were only statistically significant. In addition, female students scored higher than male students on the all subscales of the FLCAS. Such findings implied that female students experienced performance anxiety (communication and negative evaluation anxiety) in from of peers.

Table 1.
Descriptive Statistics and results of t-test for the FLCAS

Anxiety	Male (N = 82)		Female (N = 199)		*t*-values	Cronbach's α
	mean	SD	mean	SD		
Total	96.96	19.66	106.06	15.96	-4.05**	.93
Communication	27.16	6.71	31.24	5.94	-5.04**	.89
Test	24.89	6.88	25.87	5.30	-1.29	.84
Negative Evaluation	21.12	4.11	23.60	3.58	-5.06**	.72

**α statistically significant at <. 05 **α statistically significant at <. 01*

Factor Analysis

After performing mean-level analyses and checking stability of internal reliability, explanatory factor analysis (EFA) with the principal axis factoring and the varimax rotation was conducted to determine the number of factors to retain in EFA. Given the importance of this decision, eigenvalue-greater-than-one rule (Kaiser, 1960), scree test (Cattell, 1966) and minimum average partial (MAP: Velicer, 1976) methods were implemented since eigenvalue-greater-than-one rule is pervasive and popular but has many deficiencies (Ledesma & Valero-Mora, 2007). Interesting findings were that all three approaches suggested different number of factors. The scree test supported the two-factor solution, whereas the MAP attested to the three-factor solution. The eigenvalue-greater–than one rule supported even factors that were difficult to interpret. Based on all the information obtained from three analyses, the three-factor solution was finally selected.

Table 2 showed the 33 items with its factor loadings from the factor analysis. Of the 33 items in FLCAS, a total of 9 items (1, 2, 3, 9, 13, 14, 20, 24, and 33 item) were loaded on Factor 1 and explained 32 % of the total variance. Factor 1 could be labeled as communication anxiety. Factor 2 included 8 items (4, 10, 15, 16, 21, 25, 26, and 29 item) and those items could be categorized as test anxiety. It accounted for 7.7 % of the total variance. Finally, 7 items (5, 8, 11, 22, 28, 30, and 32 items) were loaded on Factor 3 and accounted 4.7% of the total variance. Factor 3 was labeled as fear of negative evaluation anxiety. Collectively, these three factors explained 47.7% of the total variance. Along with the three-factor solution, items having dual and low factor loadings were discarded: Dual factor loadings were found in 4 items (12, 18, 27 and 31) . Item 12, 27, and 31 had dual factor loadings on both factor 1 and factor 2 while item 18 has dual factor loadings on factor 1 and 4. Low factor loadings were found in 5 items (6, 7, 17, 19, and 24). Those items had less than .4 factor loadings.

Table 2.
Factor Analysis of FLCAS

Items	Factor 1	Factor 2	Factor 3
1. I never feel quite sure of myself when I am speaking in my foreign language class	0.43		
2. I don't worry about making mistakes in language class	0.56		
3. I tremble when I know that I'm going to be called on in language class	0.7		
9. I start to panic when I have to speak without preparation in language class	0.55		
13. It embarrasses me to volunteer answers in my language class	0.56		
14. I would not be nervous speaking the foreign language with native speakers	0.52		
20. I can feel my heart pounding when I am going to be called on in language class	0.76		
24. I feel very self-conscious about speaking the foreign language in front of other students	0.62		
27. I felt nervous and confused when I am speaking in my language class	**0.49**	**0.43**	
33. I get nervous when the language teacher asks questions which I haven't prepared in advance.	0.55		
4. It frightens me when I don't understand what the teacher is saying in the foreign language		0.47	
10. I worry about the consequences of failing my language class		0.32	
12. In language class, I can get so nervous I forget things I know	**0.41**	**0.43**	
15. I get upset when I don't understand what the teacher is correcting		0.54	
16. Even if I am well prepared for language class, I feel anxious about it.		0.6	
19. I am afraid that my language teacher is ready to correct every mistake I make.		0.56	
21. The more I study for a language test, the more confused I get.		0.4	
25. Language class moves so quickly I worry about getting left behind.		0.47	
26. I feel more tense and nervous in my language class than in my other class		0.57	
29. I get nervous when I don't understand every word the language teacher says		0.71	
31. I am afraid that the other students will laugh at me when I speak the foreign language	**0.44**	**0.46**	
5. It wouldn't bother me at all to take more foreign language classes.			0.36
8. I am usually at ease during tests in my language class			0.39

11. I don't understand why some people get so upset over foreign language classes		0.45
18. I feel confident when I speak in foreign language class	**0.4**	**0.4**
22. I don't feel pressure to prepare very well for language class		0.47
28. When I'm on my way to language class, I feel very sure and relaxed		0.5
30. I feel overwhelmed by the number of rules you have to learn to speak a foreign language		0.42
32. I would probably feel comfortable around native speakers of foreign language		0.53

After analyzing constructs of FLCAS with factor analysis, confirmatory factor analysis (CFA) was followed after EFA. Since there has been lack of studies using CFA performance with FLCAS, values of fit indices of Aida's four-factor solution (1994) and Parks' two-factor. solution (1984) with the current data were obtained for comparison purposes. Table 3 showed that the three-factor solution outperformed the other suggested models fit statistics in table 3 indicated the suggested model had better fit values compared to the previous studies.

More specifically, RMSEA and SRMR was .06 which was less than the suggested values (.08). In addition, relative fit statistics such as CFI and NFI did not reach the recommendation values (.90). However, values of CFI and NFI were .89 and .81 respectively. Those values were slightly less than the recommend values.

Number of Latent Classes

Fitting a single latent class to FLCAS resulted in a BIC of 16236.33. When a second latent class was added, model fit was significantly improved (BIC = 15406.09) with an entropy of .98 suggesting relatively clear delineation of classes. The model did improve either by increasing the number of classes (AIC, BIC, and entropy). However, due to the interpretation of the number of classes, all additional analyses were completed using the two-class solution.

Out of the 281 students, 218 (92%) students were categorized as latent class 1 (high anxiety), which was distinguished from the other latent class by being composed of female students (*N*= 161); 63 (8%) students were categorized as latent class 2 (low anxiety). These results implied that most students had high levels of anxiety whereas a very small portion of students had low levels of anxiety. Latent class 1 had higher mean scores of the total FLCAS and each subscales compared to the other latent class. Differences of the total FCLAS score and each subscale had also been performed. Table 4 showed differences between latent class 1 and latent class 2 with the total scores of FLCAS (, $p < .05$). Among three subscales, only negative evaluation anxiety showed a difference between latent class 1 and latent class 2 (, $p < .05$).

Table 4.
Conditional mean scores of FLCAS

Anxiety	Latent Class 1 (*N* = 218)		Latent Class 2 (*N* = 62)		*t*-values
	mean	SD	mean	SD	
Total	79.362	9.047	75.436	23.420	2.01
Communication	30.385	4.446	28.774	10.821	1.75
Test	25.752	4.055	25.032	9.793	.86
Negative Evaluation	23.225	2.962	21.629	6.044	2.88

**α statistically significant at <. 05 **α statistically significant at <. 01*

Table 3.
Summary of overall model test

Fit measures	Model measure	Ideal Value	Park's two-factor solution (1984)	Aida's four-factor solution (1994)	Suggested three-factor solution	Model tested
		P> .05	5435	758.71	559.71	Acceptable
	df		1174	315	270	
Absolute fit	RMSEA	.08	.06	.07	.06	Acceptable
	SRMR	.08		.07	.06	
Relative fit	CFI	.90	.62	.84	.89	Not acceptable
	NFI	.90	.56	.76	.81	
Simple fit	/df	1 ~ 5	4.63	2.41	2.07	Acceptable

Latent class membership with gender and reading achievement

The latent class membership with respect to gender and reading achievement was examined after identifying the number of latent classes. The odds-ratio prior probability that a student will belong to latent class 1 with respect to latent class 2 could be obtained as ln = -.75 - 1.23*(gender) + .01*(reading achievement). Female students had relatively higher odd-ratio probability of being in latent class 1(Table 5).

Table 5.
Latent Class Coefficients

	Coefficient	Standard Error	t-value
Intercept	-.75	.34	-2.20 *
Gender	-1.23	.38	-3.22 **
Reading	.01	.01	2.99 **
Gender*Reading	.01	.01	0.21

**α statistically significant at <. 05 **α statistically significant at <. 01*

In order to see the effects of gender and reading achievement on latent class graphically, predicted prior probabilities of latent class membership corresponding to each of these chosen hypothetical values were plotted (Figure 1).

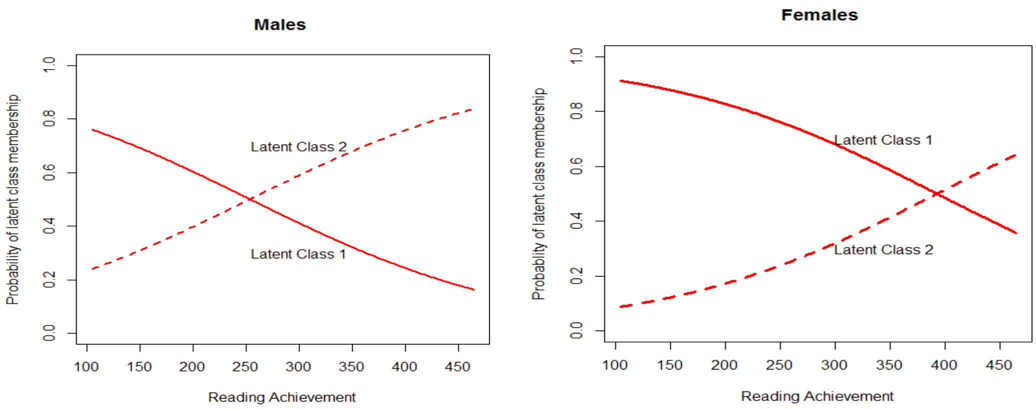

Figure 1. Predicted prior probability of latent class membership for male and female students on reading achievement

Figure 1 showed that male students had over an 80% prior probability of belonging to latent class 1, while female students had over a 90% prior probability of belong to latent class 1. However, one interesting finding was that the patterns of classifying latent classes between males and females were different. Male and female students are very likely to belong to latent class 2 as reading achievement increases. However, male students who reached a reading achievement score of around 250 tended to be just as likely to to belong to latent class 1 as to latent class 2, whereas female students who reached a reading achievement score of around 380 tended to be just as likely to belong to latent class 1 as to latent class 2. In addition, at the highest reading achievement scores, male students had a higher prior probability of belonging to latent class 2 compared to female students. Male students had over 80% prior probability of belong to the latent class 2, while female students had over 60% prior probability of belonging tolatent class 2. These results imply that female students had higher language anxiety across all levels of reading achievement compared to male students.

Conclusion and discussion

Despite the rich research on FLCAS, previous studies have not provided clear diagnostic identification of FLCAS. However, the current study provided evidence for the value of identifying the number of factors and suggested the necessity of investigating latent classes with other learners' variables (gender and reading achievement). The current study empirically supported the three-factor solution of the Korean version of the FLCAS for the current samples. In addition, the internal consistency of the FLCAS lends support to previous studies where the items of the FLCAS were very consistent (Horwitz, 1991; Horwitzet al., 1986). Results from this study also showed that mean differences in foreign language anxiety between male and female students were statistically significant.

Another finding of this study was that there were two distinguishable underlying latent classes based on high and low foreign language anxiety. The latent class analysis resulted in clusters with specific patterns of means of observed scores. Compared to the single-class analysis, the two-latent classes provided a detailed description of clusters of each individual student. The single-class analysis showed only the very general results, indicating gender had an effect on the levels of foreign language anxiety. This could imply that the levels of classes were attributable to levels of foreign language anxiety instead of manifest variables (e.g., gender).

Although this research did not put forth generalizable results, it drew readers' attention onto the phenomena of FLCAS and the possible causes of foreign language anxiety. However, the current study was not without limitations. Problems concerning research methodology did occur, which may affect the reliability of the quantitative results. Due to the small number of sample sizes, it is worth using a framework for further studies. Guidelines regarding the sample size needed for an exploratory analysis of population heterogeneity are difficult if not impossible to provide. An adequate sample size depends on several different factors, including the number of classes, the restiveness of the within-class model, the within-class model complexity, the quality of the covariate, and the reliability of the observed data within-class.

Besides some limitations mentioned above, the results of this study have several implications for researchers and assessment as well as teachers. The current study using the Korean version of the

FLCAS to investigate the existence of latent classes with gender could shed more light on the language and anxiety research. Therefore, it yields more valuable information about language anxiety in the field of language learning and/or acquisition and extends the research investigating the relationship between language learning and anxiety by incorporating the unobserved variables (latent variables). This study can contribute to the literature on the relationship between language learning anxiety and learners' variables. However, generalization of the findings should be made with caution as more research is warranted to explore the relationship of language learning anxiety with regard to different learners' variables (e.g., years spent learning English, student expectation, and cultural background).

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Chinese Scientists Engagement in Emergency Response and Emergency Science Popularization

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Abstracts

In recent years, a series of important emergencies have been taken place in China, such as 'Hainan Manila carcinoma Scandal', 'WenChuan Earthquake' and 'Shanghai Jing' an fire'. Chinese scientists played more and more significant roles in each stage of emergency response process and emergency science popularization activities. First of all, scientists engaged in decision-making process as professional consultants. Secondly, scientists did valuable research-supporting work for risk response. Thirdly, Chinese scientists gave authoritative conclusions to clarify the valid incidents disposal strategy. Fourthly, scientists were the pioneers in risk reduction and emergency management researches. Lastly, scientists played an important role in training emergency personnel. Chinese government already formed series of strategies in many aspects of public administration to improve the scientists' engagement and performance in emergency incidents. There are five main working mechanisms for Chinese scientists to gen involved into the entire emergency management procedure: government-specialists-mechanisms, science-community-systematization, expert-contact-mechanism, scientist-media interaction mechanism and combination of emergency science research and popularization.

Keywords: scientist engagement, emergency management, emergency science popularization,

1 China Research Institute for Science Popularization

INTRODUCTION

With the gradual increase of a variety of major incidents after 1990s, many countries made a new adjustment in their original emergency management system. Take US for example, after '9.11' terrorist attacks, FEMA and 22 other federal agencies formed into Department of Homeland Security (DHS), through the coordination of operational response to various emergencies and disaster to protect U.S. national security in March 2003. FEMA became into one of four main sectors in DHS. Similarly, the British Government in 2004 introduced a new 'national emergency law' and constructed the legal system with the bill for the emergency management ends, which aims to integrate the existing specialized laws and provide a unified framework of the Commonwealth's emergency management [1].

In recent years, the frequency of major incidents in China increased dramatically. Since that, economic development resulted in significant losses in China. Nowadays, China stays in a transition stage along with the rapid economic and social developing. There come many deep-seated contradictions such as population, resources, environment and public services. Consequently, the potentially dangerous of accidents, disasters, public health issues, social security and economic security crises are prominently increased. At the same time, the accelerated process of urbanization and concentrated material wealth will result in increasing in extent of injury and the risk coefficient. [2]

Major incident management is a complex system of government works. How to deal with all kinds of unexpected crises, how to get well-prepared before crisis happen, how to control the situation in the shortest period of time, and how to reduce losses, how to restore order are important functions of government. With the deepening of social modernization and a growing number of scientific and technological attributes of important emergencies, to reasonable deal with public crises needs for the cooperation of the whole society, especially the scientists. 'The overall plans of national public emergency contingency' [3] clearly defined the major incidents organizational system: State emergency management agencies should construct the professional talent pool. According to actual need, emergency management agency can hire experts to provide policy recommendations and to participate in public emergencies response when necessary. When emergencies happen, the effective participation of relevant scientists and professionals can greatly improve the efficiency of the emergency relief work. However, the current role of Chinese scientists is still far apart from social and public needs and expectations.

Scientists and other professionals should play three major roles in the whole emergencies management process. The first one is scientists should enter the decision-making level of the emergency management. Due to the higher science and technology characterize of the major emergencies in modern society, to make a scientific and efficient response calls for engagement of scientists and experts. While unfortunately, it is hard for S&T professionals to make powerful impact on the decision-making level at present. Basically, this problem comes from the organization framework of decision-making class and the executive machining in emergency response course in China. Secondly, Chinese scientists were generally absence of discourse during emergency management process, because of the lack of a prompt information publication mechanism. Experts and scientists should play the role of 'opinion leader' [4] and communicate the correct and real information to the lay public before the rumors emerge. Thirdly, in daily life, scientists and experts should take part in the science popularization work, to broadcast scientific knowledge and ideas to deal with and prepare for unexpected emergencies and crisis. Scientists will be the perfect communicator for public understanding of risk and raise public awareness of potential emergencies.

DEMACRATION OF KEY TERMS

1. Emergency

According to the Oxford Dictionary explains, 'Emergency' is part of a sudden, unexpected occurrence, the case must be addressed immediately. International representative for the definition of unexpected events are the European Court of Human Rights 'public emergency' explained that 'a special, immediate crisis or dangerous situation, affecting all citizens, and society as a whole pose a threat to normal life.'[5] Emergencies in the US have been called as emergency incidents. The U.S. definition of emergency can be broadly summarized as follows: by the U.S. President announced on any occasion, any scenario, anywhere in the U.S. federal government needs to intervene to provide supplementary assistance to help state and local governments to save lives, ensure public health, safety and property, or reduce, the threat posed by the transfer of a major disaster event. [6]

Australian crisis management expert named Robert. J. Heath gave the definition of emergency from a more specific point. While emphasizing emergencies public nature, he believed emergencies are national security events may cause great threats to the country's national security, to social security or public order and property losses or other social impacts. Emergency calls for prompt decision-making process and accurate response. Heath proposed a new category of unexpected events, that national security even, which is often overlooked by Chinese decision-making class and researchers. [7]

In China, the concept and scope for 'important emergency' has always been vague. Until the 'Emergency Response Law' enacted, the concept was somewhat clear. According to 'Emergency Response Law', Emergency means a sudden occurrence, caused or may cause serious harm to society, need to take emergency measures to cope with. Emergencies include natural disasters, accidents, disasters, public health incidents and social safety incidents. Natural disasters are including flood and drought disasters, meteorological disasters, geological disasters, biological disasters, earthquakes, forest fires etc. Accident disasters are including road traffic accidents and disasters, mining accidents, water accidents, non-coal mine accidents, industrial commercial enterprise accidents, and fires, environmental and ecological accidents. Public health emergencies are including disease outbreaks, animal diseases, food safety and occupational hazards. Social security incidents are including criminal cases, terrorism, foreign events, groups, events, economic security incidents and so on. [8]

2. Emergency Management

Emergency (Crisis) management is in response to emergencies and reduce losses caused by the crisis and adopted a series of preparedness, response measures. From a broad perspective, emergency management is included advanced emergency management, concurrent emergency management and afterwards emergency management. [9]

Emergency management means: during the entire life cycle of the emergency, an organization intends to survive from an emergency, it will mobilize all available resources (material resources, human resources) through the decision-making and policy-makers to minimize the damage, limit or even eliminate the emergency behavior. Emergency communication and emergency management in the definition of the concept is different. Emergency management's attention is to strategic planning process aimed at damage control emergency. While emergency communication is focusing on the emergency itself, with the public communication process that aims to maintain the image of the organization. [10]

3. Emergency Communications

American scholar Kathleen Fearn Banks gave the definition of emergency communication as: before, during and after the emergency, communication between the organization and the public. This essay argues that emergency communication survive throughout the whole process of emergency management from every aspect. Emergency communication is communication activity among the government, relevant organizations (including science communities) and the public via mass media and other communication channels. [11]

METHODOLOGY

This essay conducts analysis on the role of Chinese scientists in the important emergencies by case studies. Media Content analysis, quality analysis and group studies were applied according to characterize of each case:

1.'Hainan bananas cancer'scandal

In Guangdong province 2007, a media report on March 13 that banana grew in Guangdong caught 'Panama' disease. This Panama virus, as it is difficult to treat, was known as "banana cancer". While it was report subsequently extended intentionally or unintentionally misread as 'bananas cause cancer'. Consequently, this misread was resulting in a large number of poor sales of Hainan bananas prices plummeted. Author followed the tracks of the entire process of this rumor, scientists kept totally silence until four weeks later. Media Content analysis was applied in this case study to see the absence as communicator or opinion leader of Chinese scientists.

2. 'Wen Chuan' earthquakes

The 2008 Sichuan earthquake was a deadly earthquake that measured at 8.0 Ms and 7.9 Mw occurred at 14:28CST (06:28 UTC) on Monday, May 12, 2008 in Sichuan province of China, killing an estimated 68,000 people. It is also known as the Wenchuan earthquake. After the earthquake in Wenchuan, China dispatched 14 thousands PLA and armed police force, 28 thousands of police officers and special police, 75 thousands militiamen and reservists. While professional earthquake rescue team both domestic and foreign with were only 5257 people. Professional rescue teams took only 2% of the total rescue teams. Compared with the arduous task of rescue, professional rescue teams and experts were obviously not enough. It was obviously that emergency system construction of Chinese professional rescue force and the lack of specialized rescue equipment at that time. Experts and professional people didn't engage in the emergency response system efficiently.

3. Scientists and the media face to face hold by CAST [12]

China Association for Science and Technology (CAST) held 'scientists and the media face to face' activities to give a full play for the science community and mass media. This series of press-conferences activities around social hot topics and issues were intend to carry the scientists and the mass media together to create a wide range of communication channels for science. It "scientists and the media face to face" launched on 19th March 2011 and there has been more than 12 activities were finished. It was the first attempt for Chinese scientists directly and organized release information around hot social issues and emergency issues.

4. Shanghai Jing' an District fire

On November 15th 2010, one 28-story facade scaffolding houses being the wall construction caught on fire. It located in Shanghai 728 Jiao Zhou Road, Jing' and District. Shanghai fire department sent 25 fire rescued team and one hundred fire engines into the fire. The fire continued for more than 4 hours and led to 58 people were killed, 56 missing, 70 injured finally. During this miserable emergency, the lack of daily firefighting and prevention training to the public is sharply exposed. There was a Japanese family lived on the 13th floor survived via the correct way to self-protect. While a Chinese family on much lower floor hid into their bedroom died because of stifled.

RESULTS AND DISCUSION

1. Scientists are absence in the decision-making level of the emergency management

Key to the success emergency management depends on whether there is an efficient, powerful, unified, coordinated central decision-making system. China is currently no specific emergency management in public institutions and lack of professional crisis management talent. When emergency issue happens, a temporary headquarter or the leadership team set up by the State Council leads the whole response system. Take the Fukushima nuclear radiation crisis was for example, the emergency response system was co-led by the National Weather Service, National Nuclear radiation Council, the National Centre for disease Control and Prevention and other multi-sectorial responsibility, instead of a central body. This organization framework is not conducive to retention of public emergencies summarize the lessons learned, is not conducive to the formation of an effective emergency management core team of consultants, and impedes rapid and effective develop coping strategies.

The scientists were absence in a decision-making phase was obviously during the Wen Chuan Earthquake. Firstly, in Wen Chuan earthquake, there was not an expert database available to the central management office. When the emergency management office needs consulting, it cannot be efficiently get access to and organize the appropriate experts. Secondly, scientists involved in emergency decision-making power were lack of clear responsibilities and standardized protection. Contingency plans for scientists are mostly not clear. Thirdly, there was not an efficient cooperation platform to combine experts from different government branches and organizations to cooperate properly. Because of the scientists came from different sectors and lack of efficient unified cooperation platform, the experts and scientists resource cannot be integrated promptly to solve some complex issues. At last, Lack of emergency specialists, emergency professional and technical workers work norms. Because of lack of practice, scientist's fusion efficiency is low, during the emergency rescue process.

2. Lack of information disclosure mechanism is leading to scientists in the absence of the words

In traditional belief, Chinese government and public sector is rather a leader-oriented sector than a public-oriented one. With the transformation of the public administration idea, the government is turning up to be a public-service sector from a administration sector. Under this public administration belief, the disclosure of information is crucial for a public sector especially when emergency happens. Moreover, by properly publication authorized information can minimize the negative impact of rumors and panic emotions of the public. Government should ensure the smooth flow of information channels, eliminating the public's concerns, and enhance national cohesion. It will directly affect the government's image and credibility of the government. During HaiNan banana cancer crisis, it is exactly because of the wordless of scientists. The banana planters in Hainan even Guangdong province got huge economic loss. The Ministry of Agriculture gave the authorized declaration after almost one month, which is already too late for the emergency management response.

Consequently, two problems for scientists become an 'opinion-leader' via mass media. Firstly, how to ensure that scientists' opinion on public affairs can be well protected by institute. According to our interview, 48.6% scientists were willing to give public speech on hot social issues, while only 19.7% would accept interviews from mass media or publish their opinion via public channel except academic journals. Second is how to construct a proper platform for the scientists in order to communicate their opinions. Recently, there emerge all kinds of individual media for scientists to broadcast their own opinion easily, such as twitter and blog, while these new media are currently lack of reliability among public. Therefore, face-to-face communication from scientists and the media could be a good temp for this platform.

3. Public's Indifferent sense and limited knowledge of emergencies response calls for more scientists engage in emergency science popularization

Either from the Shanghai Jing' an fire or from the Wenchuan earthquake, it is not hard to find that our government lacks a sense of crisis and the crisis management awareness, Chinese people lack a sense of crisis and knowledge of self-protection measures. When emergency comes, people without preparation will immediately plunged into panic leading to irrational emotions to deal with public emergencies. It will bring great difficulties to the government to handle with the crisis.

Nowadays, more and more scientists take part in the popular science activities: giving science lectures to community citizens, writing popular science articles and news, joining popular science TV shows and so on. On the other hand, comparing with the increasing public demands on science and technology information, they stay in lower level. Especially when emergency happens, the communication of emergency response will get the best effect than normal time. Proper communication on knowledge to public and awareness of the whole society would become big concerns and obligatory of scientist.

CONCLUSIONS AND PERSPECTIVES

From all above, In China Scientists should play five key roles in important emergency. First of all, scientists engaged in decision-making process as professional consultants. Secondly, scientists did valuable research-supporting work for risk responses. Thirdly, Chinese scientists gave authoritative conclusions to clarify the valid incidents disposal strategy. Fourthly, scientists were the pioneers in risk reduction and emergency management researches. Lastly, scientists played an important role in training emergency personnel. Chinese government already formed a series of strategies in many aspects of public administration to improve the scientists' engagement and performance in emergency incidents.

There are five main working mechanisms for Chinese scientists to take part in emergency management including government-specialists-mechanisms, science-community-systematization, expert-contact-mechanism, scientist-media interaction mechanism and combination of emergency science research and popularization. According to our interview and study, at present, Chinese scientists act better as the professional role; however, still lacking in the role related in the public and their impacts on the decision-making level. Since that, we picture two perspectives on government-specialists-mechanism and scientist-media interaction mechanism for Chinese scientists to improve in emergency management course.

1. Scientist should engage more in the decision-making process

To make sure the scientist can engage more in the decision-making process during emergency management, it should be guarantee at the institute level. That means when the government and relevant departments develop their own major emergency plans or regulations, scientists should get involved in the regulation making process. Considering the complexity of facing of unexpected emergencies, the emergency response regulation should integrate all kinds of professionals such as engineering, medical, mechanical and geographic etc. the regulation is also to be an integrated plan to combine resources from all kinds of public sectors.

After an important emergency occurs, the government should organize relevant scientists to conduct re-evaluation and revision of existing plans according to the performance of the contents of the existing system and executable plans to make the system more specialization. When disasters occur, the plan can be fully effective, efficient response to emergencies caused by various social issues. Emergency management decision-making class should be at least partly composed by scientists and experts. Moreover, they should get fully authorized in executive course. It happened in Wenchuan earthquake that the higher commander makes high-technical decision instead of experts.

2. Scientists should engage more in science communication activities to improve the public awareness of emergency

At present, China's public is generally lack of sound scientific knowledge and methods, which cannot response properly and promptly to major emergencies in the time. Therefore, when a crisis occurs, the general public is often unable to distinguish between real information and rumors, and they cannot use technological means to make the right actions, which are often misled by rumors, make the wrong judgments, so that once again brought in another risk. For example, during Wenchuan earthquake, the network appears 'abnormal animal behavior is earthquake precursors,' the news spread via Internet and cause a lot of panic to citizens, resulting in unnecessary losses. On the other hand, if the people in disaster have a sound scientific understanding on disaster, they would be able to help themselves and others into disaster rescue. Also, if all levels of decision-makers can use scientific management methods and tools to make the right decisions, it is equally important to help the relief work.

Scientists from various areas have the knowledge and quality to respond to emergencies properly. Therefore, communication in scientific knowledge to the public and policy makers should be taken an account before, during and after the emergency occurs by scientists. Some scholars believe that these scientists can provide the five sorts of scientific and technological knowledge: to provide information in order to guide the public in different crisis situations in the action, to enhance the public's sense of crisis, to alert the public when a crisis occurs, to provide information as emergency management consultant and analyze the further crisis, as well as to provide information about what to do, where to go, who to contact and information on measures taken to control and resolve the emergency.

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Can Media Reduce Urban-rural Health Knowledge Gap in China? Rethinking the Role of Television and the Internet

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Abstract

Social distribution disparities have led to a knowledge gap between urban and rural areas in China. Traditional knowledge gap theory argues that mass media tends to widen the gap, while some studies found different types of media may have a different effect. Healthy eating knowledge, as a particular knowledge, is crucial in guiding healthy lifestyles and improving the quality of life. Despite its unbalanced attribution in urban and rural China, the knowledge gap may be narrowed due to increasing media literacy in rural areas.

This study explores the role of television and the Internet in increasing/reducing the healthy eating knowledge gap in China, by examining data from a 2009 national survey (N = 10015). Findings show that both television and the Internet help to narrow the urban-rural health knowledge gap, as the association between media use and health knowledge is higher for rural people than for urban people. Besides, rural people benefit from both TV and the Internet, while urban people only benefit from surfing the Internet.

The discussion of the results helps us to reconsider the role of media in knowledge gap theory, and it serves the practical role of informing policy makers of appropriate media type in order to overcome urban-rural knowledge gap in China.

Keywords: Health-knowledge gap, Media effect, Urban-rural disparity

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Introduction

Knowledge is crucial for social development. Due to social distribution disparities, there is a knowledge gap between urban and rural China. With the diffusion of media information, the knowledge gap may be changing. Following the assumption of knowledge gap theory, the media has a greater effect on social segments in high socioeconomic statuses (high SES) than in low socioeconomic statuses (low SES). This is because high SES people have better skills at processing information and acquiring knowledge than low SES people. In other words, the development of media turns out to increase social inequality.

Stepping into an information era, China makes great efforts in developing media technology to keep up with this worldwide trend. But will media development widen China's urban-rural knowledge gap as predicted by knowledge gap theory? Policy makers are faced with a dilemma. Although most related studies supported knowledge gap hypothesis, some researchers found media may have little effect or a "diverted" effect on knowledge gap. To clarify this question, we compared how two types of media (television and the Internet) influence the urban-rural health knowledge gap in China.

Thus, the study's value is two-fold.

In theory, it provides empirical evidence for inconsistent knowledge gap research findings. The comparison of different media types added knowledge to the changing media landscape in an era of social transformation.

In practice, it facilitates policy makers of appropriate decisions for developing media and information technology.

Literature Review

Urban-rural knowledge gap in China

Knowledge plays a vital role in the development of society. In the information era, the disparity in knowledge level can easily transform into unbalanced distribution of social power. Several factors can influence knowledge development in an area, and socioeconomic factors have great impact among others. In today's China, huge social distribution disparities tend to form a great knowledge gap between urban and rural areas. This is mainly because urban areas enjoy better economy and more open policy, thus they have a greater capacity to develop education. Generally speaking, a better educated population usually has a higher knowledge level. In this way, the knowledge gap between urban and rural China is formed and continuously widened.

To overcome this gap, some rural areas realize the importance of education, but their efforts of developing education also fail because of the constraint of economy. According to Hu and Xiong (2000), less-developed districts are more motivated to increase education development and spend a greater share of finances on education, but their actual education investment is still small due to a poor economy.

Therefore, economic gap transfers into education gap, and then into knowledge gap. That is to say, a knowledge gap not only causes social-economic gaps between urban and rural China, it is also the result of unequal social development between them. Although consensus is that there is a huge knowledge gap between urban and rural China, few empirical studies directly support that statement. To supplement existing research, the study first tests if there is a significant health knowledge gap between urban and rural China. Thus we propose:

Hypothesis: Health knowledge in urban area is significantly higher than that in rural areas.

Mass media and the knowledge gap

Knowledge gap theory illustrates how media influences knowledge gap between people in high socioeconomic statuses and in low socioeconomic statuses. The mass media effect is portrayed as an accelerator in widening existing knowledge disparity between different social segments.

The knowledge gap theory states that (Tichenor et al., 1970: 159-160):

"As the infusion of mass media information into a social system increases, segments of population with higher socioeconomic status tend to acquire this information at a faster rate than the lower status segments, so that the gap in knowledge between these segments tends to increase rather than decrease."

In China, urban people are mostly in a higher socioeconomic status than rural people. Scholars tend to believe there is an urban-rural knowledge gap in China, though few empirical studies support it as aforementioned. If we follow the typical knowledge gap theory hypothesis, it would be proposed that the urban-rural knowledge gap is widened by the diffusion of television information, the most popular mass media in both urban and rural China. However, this hypothesis may not be true for the following two reasons.

First, urban and rural people may have different reliance on television. Research showed that well-educated people have broader social networks (Viswanath et al., 2000), so they can depend on interpersonal channels to obtain knowledge. Urban people are relatively better educated, so they may depend on television less than rural people do. When rural people have greater reliance on television, they will be more motivated to elaborate information on television. As a result, television may help rural people to gain knowledge more than it helps urban people.

Second, although most knowledge gap theory studies found mass media would increase gap in knowledge, some researchers found media has little effect or even a "diverse" effect on forming knowledge gaps (see a review, Gaziano, 1983). The inconsistency in research findings calls for further exploration.

Thus, we propose:

RQ1: Does television exposure increase or reduce urban-rural health knowledge gap?

The Internet and the knowledge gap

There are two schools of opinions regarding the role of the Internet in changing the knowledge gap. Technology optimists contend that the Internet is an equal technology that will benefit everybody and contribute to a more informed society (Gates, 1995). Following those thoughts, the Internet will widen the knowledge gap. On the other hand, some scholars argue that the Internet can only benefit those with access to it (Jeffres, Neuendorf & Atkin, 2012). In a society where most people have no access to the Internet, the new technology would create a wider gap between the rich and the poor.

In China, most urban people have access to the Internet while only a small proportion of rural people can access the Internet. But this does not necessarily mean the urban-rural knowledge gap in China will be increased by the Internet, because of an important moderator: use pattern. Unlike television, the Internet does not disseminate information to passive audiences. Instead, active users choose how the can make use of the Internet, such as reading news, talking to friends, playing games, etc. Thus, exposure to the Internet cannot guarantee obtaining useful information.

Thus we propose:

RQ2: Does the Internet exposure increase or reduce urban-rural health knowledge gap?

Method

Data

In order to test the hypothesis and answer the research questions, data have been derived from the 2009 China Health and Nutrition Survey (CHNS). This is a high-quality academically driven international collaborative project between the Carolina Population Center and the National Institute of Nutrition and Food Safety in China. The CHNS was designed to chart and explain how the social, economic, and demographic factors of Chinese society are affecting the population's nutrition and health behaviors and outcomes. Data was collected via a multi-level random process. Respondents were invited from about 4400 households in nine geographically and economically different provinces in China: Liaoning, Heilongjiang, Jiangsu, Shandong, Henan, Hubei, Hunan, Guangxi and Guizhou, at both the individual and community level.

In this contribution, we decided to only investigate health knowledge, media use, and demographic variables within a total of 10015 adult respondents aged 18 years and older. No weighting has been done, for State Statistical Office of China would not share sample frame, as stated by the China Health and Nutrition Study team. Since our study focuses on the causal relationship, rather than descriptive representation, absence of weighting is considered acceptable.

Measurements

Independent Variables

Residence: Respondents were identified by researchers as living in urban or rural areas, according to where questionnaires were collected. Among all the participants, 34% of them were urban people.

Television exposure: Respondents were asked whether they participate in the activity of watching TV. If the answer was "yes," then they were asked to recall how much time they spent watching

TV during a typical weekday and weekend. The exact exposure was calculated in minutes by the researcher on a weekly basis. Television exposure for those who reported not watching TV was recorded as "0."

Internet exposure: Respondents were asked whether they participate in the activity of surfing the Internet. If the answer was "yes," then they were asked to recall how much time they spent surfing the Internet during a typical weekday and weekend. The exact exposure was calculated in minutes by the researcher on a weekly basis. Internet exposure for those who reported not surfing the Internet was recorded as "0."

Dependent variable

Health knowledge: There is no standard measurement of general health knowledge (Lee, 2009), but the diet knowledge measured by nutrition and health professionals in CHNS can to some extent represent health knowledge development. Respondents were asked if they agree with 10 diet knowledge statements on a five-point Liker scale with 1= strongly disagree to 5 = strongly agree. There are both correct and incorrect statements. For example, correct statements may appear as "Choosing a diet with a lot of fresh fruits and vegetables is good for one's health" or "Eating a variety of foods is good for one's health." On the other hand, incorrect statements may appear as "The heavier one's body is, the healthier he or she is," or "Consuming a lot of animal products daily (fish, poultry, eggs and lean meat) is good for one's health." All the incorrect statements are reverse coded, so that a higher score represents higher health knowledge.

The reliability of the health knowledge scale increased when the statement "Sweaty sports or other intense physical activities are not good for one's health" was removed. Therefore, the reliability of the nine-item scale is 0.64, which falls in an acceptable range.

Result

Hypothesis testing

It is hypothesized that health knowledge in urban areas is significantly higher than that in rural areas. The hypothesis is supported by the data.

To test the hypothesis, an independent samples' t-test was conducted. Results show that there is a significant difference ($t = 11.23$, $p < .001$) between urban people (mean = 3.80, S.D. = .33) and rural people (mean = 3.73, S.D. = .34).

Research question

To answer the research questions, multiple regressions were conducted.

RQ1: Does television exposure increase or reduce urban-rural health knowledge gap?

The statically significant regression coefficient showed that one's residence moderated the relationship between television exposure and health knowledge (see Table 1). That is, the association between television exposure and health knowledge was stronger for rural people than for urban people. In other words, the urban-rural health knowledge gap became smaller as one's exposure to television increased (see Figure 1).

Table 1.

Regression Analysis Predicting Health Knowledge Using Television Exposure and Residence.

Regression Analysis Predicting Health Knowledge Using Television Exposure and Residence

Variable	Unstandardized Coefficients	Standardized Coefficients	
Television exposure	0.00***	0.07***	
Incremental R^2(%)			0.3***
Residence (Urban = 1)	0.01***	0.15***	
Incremental R^2(%)			1.2***
Residence x Television exposure	0.00**	-0.05**	
Incremental R^2 (%)			0.1**

Note: N = 10015. *p < .05; **p < .01; ***p < .001.

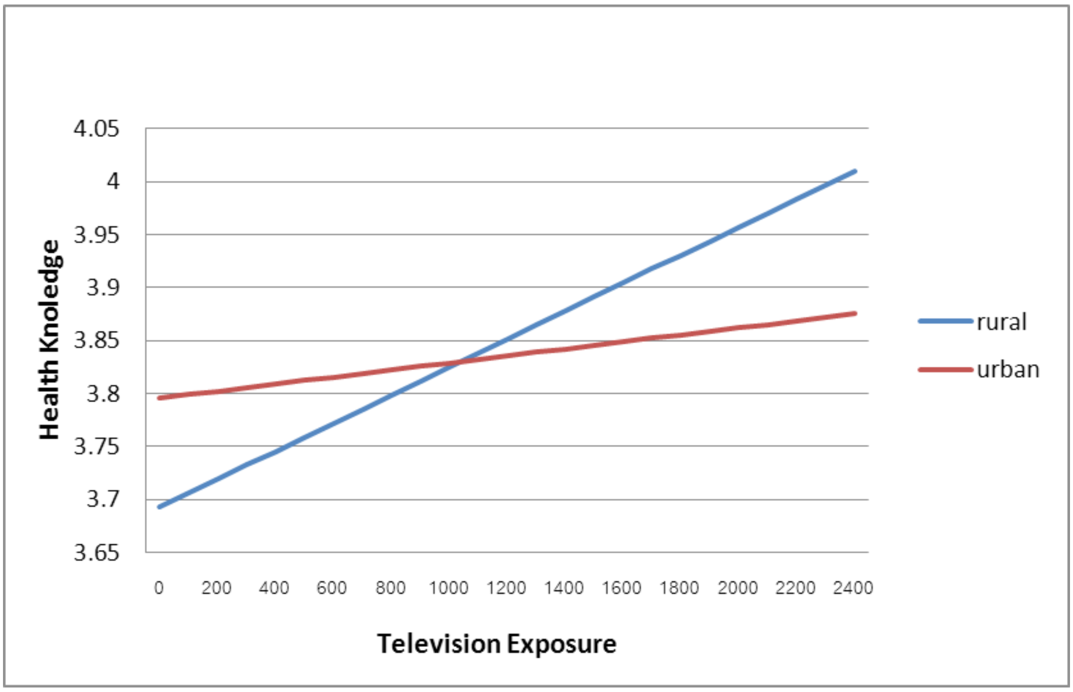

Figure 1. Predicted Health Knowledge: Moderating the Role of Residence on Television Exposure

RQ2: Does Internet exposure increase or reduce urban-rural health knowledge gap?

The statically significant regression coefficient showed that one's residence also moderated the relationship between Internet exposure and health knowledge (see Table 2). That is, the association between Internet exposure and health knowledge was stronger for rural people than for urban people. Thus similarly, the urban-rural health knowledge gap became smaller as one's exposure to the Internet increased (see Figure 2).

Table 2.
Regression Analysis Predicting Health Knowledge Using Internet Exposure and Residence.

Regression Analysis Predicting Health Knowledge Using Internet Exposure and Residence

Variable	Unstandardized Coefficients	Standardized Coefficients	
Internet exposure	0.00***	0.14***	
Incremental R^2(%)			1.4***
Residence (Urban = 1)	0.07***	0.10***	
Incremental R^2(%)			0.9***
Residence x Internet exposure	0.00*	-0.04*	
Incremental R^2(%)			0.1*

Note: N = 10015. *p < .05; **p < .01; ***p < .001.

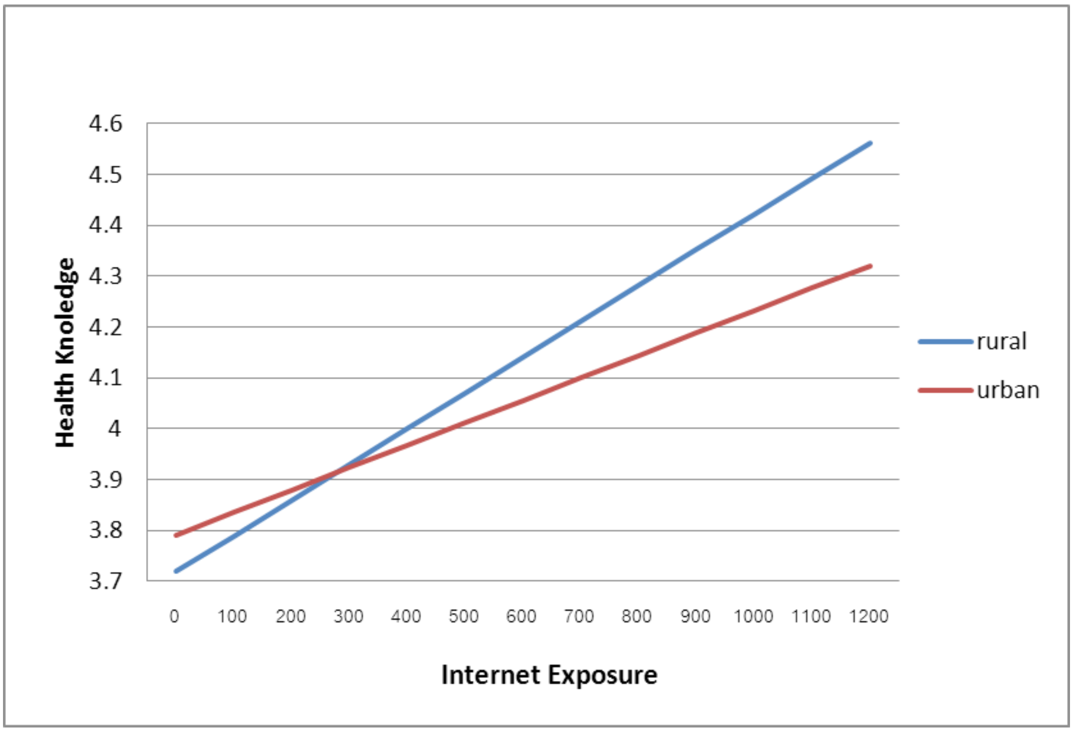

Figure 2. Predicted Health Knowledge: Moderating the Role of Residence on Internet Exposure

Discussion

Difference between TV and the Internet

The study compares the role of TV and the Internet in changing the urban-rural health knowledge gap. As aforementioned, both TV and the Internet help rural areas more than urban areas. However, if we split data into two parts (urban and rural) and conducted regressions respectively, a difference between TV and the Internet can be found. That is, rural people benefit from both TV and the Internet, while urban people only benefit from surfing the Internet ($\beta = .12$, $p < .001$), leaving television as not influential ($\beta = .02$, $p > .05$).

This finding reflects the declining role of television in urban China. That is, television can hardly influence urban citizens' knowledge level. In comparison, the role of the Internet is emerging. As an information-rich media, the Internet can better meet urban people's need to acquire new knowledge. Future studies are advised to closely look into the different Internet use pattern for rural and urban people, so we can have a clear understanding of how use patterns influence the urban-rural knowledge gap.

Rethinking knowledge gap theory

Classical knowledge gap argues that the media provides more benefits for the social segments with a high socioeconomic status than those with a low socioeconomic status. However, our findings provide counter cases to this argument. Although rural China is largely in the lower socioeconomic status, people in rural areas acquire more knowledge from television and the Internet than their urban counterparts. If we adopt the assumption that rural people are in a lower socioeconomic status and have low information processing ability, the results would seem unexplainable. Nevertheless, a clarification of the concept "knowledge" can help us to understand why urban-rural knowledge gap is reduced, rather than widened.

For each individual, knowledge can be roughly divided into two types: prior knowledge and new knowledge. People with a high socioeconomic status possess higher knowledge on general topics (Price and Zaller, 1993) and have better information processing skill, so they can acquire more new knowledge from media (Graber, 2001). However in our case, the health knowledge measured is some general statements regarding nutrition, which may be prior knowledge for urban citizens, but new knowledge for rural people. As a result, media use cannot help urban citizens very much in gaining general health knowledge that they have already known, while it does inform rural people of the knowledge that is brand new to them. So finally, the general health-knowledge gap is reduced between urban and rural people.

In addition to the prior-versus-new explanation, reliance on media can also serve to explain our findings. As mentioned in the literature review section, rural people depend on media more than urban people. This is mainly because urban people can gain knowledge from various channels such as education and social networks. On the other hand, rural people with limited information channels may depend on and value media more, and hence develop greater attention and higher motivation to elaborate on information on media.

In conclusion, knowledge gap theory should be reconsidered for the key variable "knowledge type." More specifically in our case, rural areas benefit from media more than urban areas in gaining "general" health knowledge. Of course, this does not mean it is the same case if the object of analysis is the "professional" health knowledge, which is new to both urban and rural people. But at least we can see that media are not always increasing knowledge gap. Thus in practice, policy makers do not have to fear media development, if their goal is to achieve social equality of getting basic but necessary knowledge for different social segments.

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Relationships between Perceived Benefits of Hand Washing, Perceived Barriers of Hand Washing, Perceived Self-Efficacy of Hand Washing, Interpersonal Influences, and Hand Washing Behavior among Fifth Grade Students of Public Elementary Schools in Bali, Indonesia

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Abstract

Hand washing behavior can protect students from infectious diseases. In practice the rates of proper hand washing behavior around the world are still very low. The objective of this study was to explore relationships between perceived benefits of hand washing, perceived barriers of hand washing, perceived self-efficacy of hand washing, interpersonal influences, and hand washing behavior among fifth grade students of public elementary schools in Bali, Indonesia. Pender's Health Promotion Model was used to guide this descriptive cross-sectional study. Samples were 404 fifth grade students recruited from six public elementary schools in the North Denpasar sub-district, Bali, Indonesia. Data was collected by using a Hand Washing Behavior Questionnaire. The association among variables was analyzed using Pearson's Product-Moment correlation coefficient. Main results found that perceived benefits of hand washing, perceived self-efficacy of hand washing, and interpersonal influences were positively significant correlated with hand washing behavior of samples ($r = .19$, $p < .001$; $r = .40$, $p < .001$; $r = .47$, $p < .001$, respectively). However, perceived barriers of hand washing were negatively significant correlated with hand washing behavior of samples ($r = -.17$, $p < .01$). Based on the results, students' interpersonal influences and perceived self-efficacy should be promoted as the priorities of hand washing behavior programs. Information about proper hand washing behavior and better facilities of hand washing should also be applied to improve hand washing behavior among students.

Keywords: hand washing behavior, perceived benefits of hand washing, perceived barriers of hand washing, perceived self-efficacy of hand washing, interpersonal influences, fifth grade students

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Introduction

World Health Organization (WHO) reported that acute respiratory infection and diarrhea are the major causes of death of children less than five years worldwide (WHO, 2009). WHO (2010) estimated acute respiratory infection and diarrhea are responsible for 35% of children's deaths. In Indonesia, in 2010, diarrhea and acute respiratory infection were the causes of 201,649 (14.15%) deaths of children aged 6 to 12 years (MoH of Indonesia, 2010). In Bali, the number of diarrhea and acute respiratory infection diseases in 2011 were 149,448 cases and 3,215 cases, respectively (MoH of Indonesia, 2012).

Diarrhea and acute respiratory infection are common among elementary school students (Luby et al., 2005). This indicates that the elementary school students have high potential contribution for the spread of acute respiratory infection and diarrhea not only among students but also to the community (Luby et al., 2005; Vessey, Sherwood, Warner, & Clark, 2006). Students may also be absent because of illness and lose learning opportunities or even drop out of school (Lau et al., 2010).

Many studies have found that hand washing with soap is the most effective, easiest, and most inexpensive way to prevent diarrhea and acute respiratory infection (Judah et al., 2009; Lau et al., 2010). Unfortunately, in practice the rates of proper hand washing behavior around the world are still very low (Scott, Valleri, Rabie, & Garbrah, 2007). In Indonesia, only 23.2% of the total population had correct hand washing habits (MoH of Indonesia, 2007). A similar result was reported in elementary school. Only 33.6% of primary school students in Bogota, Colombia, always or very often washed their hands with soap and water before eating and after using the toilet (Quintero, Freeman, & Neumark, 2009). A recent study by Setyautami (2012) reported that only 40.5% elementary school students in Kapuas, Indonesia, washed their hands properly before eating and after using the toilet.

Previous studies conducted in elementary schools revealed that facilities, supplies, norms, and models become factors that affect hand washing behavior among elementary school students (Scott et al., 2007; Quintero et al., 2009). In Indonesia, the type of parenting system and access to clean water affected hand washing behavior among elementary school students in Java (Zain, 2010; Sopacua, Paramita, & Widjiartini, 2011). However, based on a literature review, study about the relationships between perceived benefits, perceived barriers, perceived self-efficacy, and interpersonal influences on hand washing behavior in elementary school student, especially in Bali, Indonesia, was not found.

Denpasar is the most densely populated area in the Bali province and holds 20.3% of the province's total population (Bureau of Central Statistic of Indonesia, 2010). In 2011, North Denpasar sub-district had the highest number of acute respiratory infections in school aged children, about 466 cases (38%) from a total of 1,224 cases in Denpasar (MoH of Denpasar, 2011), and diarrhea cases in school aged children is 2,380 cases (9.3%) from a total of 25,485 cases in Denpasar (MoH of Denpasar, 2011). North Denpasar sub-district also has the largest number of public elementary schools (47) in Denpasar and has 17,982 elementary school students (MoH of Bali, 2012). Clearly, this situation shows the potential for transmission of infectious diseases between school students and also to the community.

Pender identified a variety of factors that affect health promoting behaviors such as perceived benefits, perceived barriers, perceived self-efficacy, and interpersonal influences (Pender, Murdaugh, & Parsons, 2011). Pender et al. (2011) mentioned that health promoting behavior, including hand washing behavior, is the desired behavioral outcome of Pender's Health Promotion Model (HPM). However, several studies used other health promotion models to explore hand washing behavior, such as the Health Belief Model (Morton & Schultz, 2004), the PRECEDE-PROCEED Model (Yuhanna, 2010; Zain, 2010), and the Theory of Planned Behavior (Setyautami, 2012), but not Pender's model. Researchers believed that Pender's HPM is useful and can guide the direction to select associated factors of hand washing behavior in fifth grade students because it has been used widely in health promoting behavior studies and provides effective intervention to promote health behavior in all ages and populations, especially children (Frenn, Malin, & Bansal, 2003; Mohamadian, 2011). Due to low rates of proper hand washing behavior among students and limited study about factors associated with hand washing behavior, particularly in North Denpasar context, this study was conducted with the aim of exploring relationships between perceived benefits of hand washing, perceived barriers of hand washing, perceived self-efficacy of hand washing, interpersonal influences, and hand washing behavior among fifth grade students of public elementary schools in Bali, Indonesia. Understanding these factors would be useful information for health care providers seeking to improve hand washing behavior among fifth grade students.

Methods

Research design

This study was descriptive cross-sectional design.

Population, sample, and sampling technique

Population in the study was 3,067 fifth grade students of public elementary school students in North Denpasar sub-district, Bali, Indonesia (MoH of Bali, 2012a). Fifth grade students were selected as a sample because they have some distinctive developmental characteristics in the domains of cognitive, behavioral, social, and communication (UNICEF, 2011).

Based on the formula by Isaac and Michael (2004 as cited in Suwarno, 2007), the minimum total sample size in this study was 341 samples. This study used cluster sampling. North Denpasar sub-district was purposively selected because it had the highest number of acute respiratory infection and diarrhea (MoH of Denpasar, 2011) and the largest number of public elementary schools (MoH of Bali, 2012a). It consists of three PHCs: PHC North Denpasar 1, 2, and 3. Public elementary schools from the nearest and farthest villages from each PHC were selected by simple random sampling. Further, fifth grade students in each public elementary school were selected by the convenience sampling.

Inclusion criteria of the sample in this study were students who: 1) were studying in fifth grade in academic year 2012 -2013, 2) have been permitted to participate by the parents or guardian, 3) were willing to participate in the study, and 4) can read and write in Bahasa, Indonesia, as evaluated by the advisor teacher. Fifth grade students of public elementary schools who did not present in the class when the data collection was carried out were excluded from the study. Since all fifth grade students in selected schools met the inclusion criteria and were willing to participate in the study, the total samples from six selected public elementary schools were 415 students.

Instrument

The instrument used for collecting data was the Hand Washing Behavior (HWB) Questionnaire. The HWB Questionnaire was developed by the researchers based on Pender's Health Promotion Model, the hand washing technique guidelines of MoH Bali (2012b), and previous studies. There were 57 items in this questionnaire in six parts: 1) socio-demographic characteristics, 2) perceived benefits of hand washing, 3) perceived barriers of hand washing, 4) perceived self-efficacy of hand washing, 5) interpersonal influences, and 6) hand washing behavior.

Socio-demographic characteristics consisted of ten items. Perceived benefits of hand washing part consisted of six positive items. Perceived barriers of hand washing part consisted of four positive and five negative items. Perceived self-efficacy of hand washing part consisted of six positive items. Interpersonal influences part consisted of 14 positive items. In parts 2 to 5, participants were asked to rate on a three-point Likert type scale, ranging from 0 = disagree, 1 = not sure, and 2 = agree. In data analysis, the agree answers from participants were converted to become 1, while not sure and disagree answers were converted to 0. In part 3, for positive items, agree and not sure answers from participants were converted to 0, while disagree answers were converted to 1, and the answers were converted in opposite ways in negative items. Total scores of each part were calculated by summing the score of each item. The higher scores reflect greater perceived benefits of hand washing, perceived barriers of hand washing, perceived self-efficacy of hand washing, and interpersonal influences of fifth grade students of public elementary schools. The hand washing behavior part consisted of 12 positive items. Participants asked to rate on a three-point Likert type scale, ranging from all the time practice = 2, sometime practice = 1, and never practice = 0. The maximum score reflects proper hand washing behavior of fifth grade students of public elementary schools.

Content validity of the questionnaire was examined by five experts in the areas of health behavior, health promotion, and nursing education. The results of the content validity index were 99% for relevance and 97% for clarity. Further, the HWB Questionnaire was translated into the Bahasa Indonesia language and translated back into English by different certified translators. The final questionnaire in the Bahasa Indonesia language was checked by two teachers who have taught the Bahasa Indonesia language subject in fifth grade of public elementary school to ensure the phrases used in the questionnaire were understood by participants.

Before data collection, an internal consistency reliability test had been done on a sample of 35 fifth grade students at another public elementary school with the same inclusion criteria. The result of the reliability test showed that all parts of the HWB Questionnaire had acceptable value (internal reliability coefficient ranged from .76 to .96) based on acceptable criteria greater than .70 (Burns and Grove, 2009).

Data collection

The data was collected in selected public elementary schools in North Denpasar sub-district, Bali, Indonesia, between May and June 2013. Data collection was carried out in the class at an agreed time from the headmaster and took time approximately 30-45 minutes.

Ethical consideration

Approval and permission to conduct the study was obtained from the Institutional Review Board of the BCNNV (IRB No. 19/2013) and the Board for National Unity and Peoples' Protection of Bali Province (No. 070/691/BIDI/BKBP). Parents or guardians and students signed the informed consent forms indicating their permission and willingness to participate in the study. Researchers kept anonymity and confidentiality of participants' identity and responses. The findings were presented in aggregate.

Data analysis

The socio-demographic characteristics were analysed by frequency and percentage. All independent variables and dependent variable were analysed by range, mean, and standard deviation. Pearson's product moment correlation coefficient was performed to determine the nature of associations between associated factors and hand washing behavior. Eleven cases were deleted because of outliers, therefore, 404 cases were maintained in the data set of the study.

Results

In this study, most of the participants were male (51.2%) and lived with their parents (99.3%). A majority of the father's occupation and mother's occupation were non-government workers (77.3%, 61.7%, respectively).

Table 1.
Number and percentage of general characteristics of participants (n= 404)

Characteristics	Number	Percentage
Gender		
Male	207	51.2
Female	197	48.8
Person who students live with		
Parents	401	99.3
Guardian	3	0.7
Father's occupation (n = 396)*		
Non-government worker	306	77.3
Government worker	81	20.5
Unemployed	9	2.2
Mother's occupation (n = 399)*		
Non-government worker	246	61.7
Housewife	68	17.0
Government worker	58	14.5
Unemployed	27	6.8
Guardian's occupation (n = 3)		
Carpenter	2	66.7
Government worker	1	33.3

** The total number of samples was changed because students' father and mother had passed away.*

Among independent variables, average scores of all variables tended to be high. Perceived self-efficacy of hand washing revealed was the highest score (M = .78, SD = .19) and perceived barriers of hand washing revealed was the lowest score (M = .09, SD = .11). However, the mean score of perceived barriers of hand washing indicated that participants perceived fewer barriers to practice hand washing behavior. Moreover, the hand washing behavior score was high (M = 1.64, SD = .29).

Table 2.
Mean, standard deviation, and range of independent and dependent variables (n= 404)

Variables	Mean	Standard deviation	Range
Perceived benefits of hand washing	.59	.22	0-1
Perceived barriers of hand washing	.09	.11	0-1
Perceived self-efficacy of hand washing	.78	.19	0-1
Interpersonal influences	.67	.16	0-1
Hand washing behavior	1.64	.29	0-2

The main result revealed that there was weak positively significant correlation between perceived benefits of hand washing and hand washing behavior ($r = .19$, $p < .001$) and moderate positively significant correlations between perceived self-efficacy of hand washing, interpersonal influences, and hand washing behavior ($r = .40$, $p < .001$ and $r = .47$, $p < .001$, respectively). However, there was a weak negatively significant correlation between perceived barriers of hand washing and hand washing behavior ($r = -.17$, $p < .01$). This indicated that less perceived barriers of hand washing were associated with a high level of hand washing behavior.

Table 3.
Pearson's correlation coefficient between independence variables and hand washing behavior (n= 404)

Variable	Hand washing behavior	
	r	*p value*
Perceived benefits of hand washing	.19	.000
Perceived barriers of hand washing	-.17	.001
Perceived self-efficacy of hand washing	.40	.000
Interpersonal influences	.47	.000

Discussion

The result of the study indicated that an increase of perceived benefits of hand washing would increase proper hand washing behavior among participants. The result of the study was expected to be in line with the hypothesis and supported by Pender's HPM, which mentioned that positive perceived benefits can increase individual participation in health behavior (Pender et al., 2011). In this study, participants realized that hand washing behavior is good for them because it can provide benefits. One possible explanation is that a combination of participants' logical thinking and knowledge about the benefits of hand washing would make them perform hand washing behavior. They would realize that hand washing behavior could protect them from infectious diseases. Then, being free from these diseases would make them able to maintain good attendance in the classroom. This explanation was supported by UNICEF (2011), which mentioned that fifth grade students begin to think about consequences of their actions. They are able to conduct logical thought and begin to be concerned about presenting their body image and appearance perfectly. The result of this study was also consistent with some previous studies reported that perceived benefits have positive relationship with health behavior (Guedes et al., 2009; Taymoori et al., 2009; Vakili et al., 2011).

The result of the study found that a decrease in perceived barriers of hand washing would increase proper hand washing behavior among participants as expected in the hypothesis. Pender's HPM mentioned that negative perceived barriers can decrease individual participation in the health behavior because barriers are obstacles for individuals which influence them not to participate in health behaviors (Pender et al., 2011). In this study, participants reported that they faced few barriers to practicing hand washing behavior because schools and parents provided them facilities and sufficient supplies for hand washing behavior. Consequently, they can wash their hands at schools and in their houses. It is also supported by a study conducted by Quintero et al. (2009), which found that if schools and parents provided facilities and supplies for students, they could practice hand washing behaviors. The result of this study was also consistent with some previous studies, which reported that perceived barriers have negative relationship with health behavior (Taymoori et al., 2009; Mohamadian et al., 2011).

The result of the study indicated that an increase in perceived self-efficacy of hand washing would increase proper hand washing behavior among participants. The result of the study was as expected with the hypothesis and consistent with some previous studies, which reported that perceived self-efficacy had a positive relationship with health behaviors (Taymoori et al., 2009; Mohamadian et al., 2011; Vakili et al., 2011). Pender's HPM stated that a greater perception of self-efficacy enhances individual participation on specific health behavior (Pender et al., 2011). In this study, participants perceived that they have the ability to perform hand washing behavior. This condition drives them to be confident and intent to practice proper hand washing. An increase in individual skills on particular health behaviors would improve individual confidence and intention to organize and take action on a particular health behavior (Pender et al., 2011). This is also supported by characteristics of fifth grade students who are in early adolescent. Children at this age want to be independent and form their self-esteem (UNICEF, 2011). To be able to perform proper hand washing behavior reflects their ability to do things and makes them feel independent.

An increase in interpersonal influences would increase proper hand washing behavior among participants. The study finding was expected with the hypothesis and is supported by Pender's HPM, which mentioned that a greater perception of interpersonal influences enhances personal specific health behavior (Pender et al., 2011). In this study, participants perceived that they have positive influences from parents, teachers, and health care providers to perform hand washing ($M = .67$, $SD = .360$). Participants perceived that they received all components of interpersonal influences such as norms, social support, and models. One possible explanation is that all components are synergistic to drive participants' motivation and intention to perform proper hand washing and maintain this behavior because they want to be and do things as teachers, peers, and parents' expect. In their developmental stage, fifth grade students perform behaviors followed by role models (UNICEF, 2011) to find and form their own identity. If persons who are close and influence them perform proper hand washing behavior, they will imitate and follow those behaviors. The result of this study was similar with previous studies, which reported that interpersonal influences have positive relationship with health behavior (Mohamadian et al., 2011; Vakili et al., 2011).

In summary, the main findings of this study supported Pender's HPM. Although all independent variables were associated with hand washing behavior, in this study perceived self-efficacy and interpersonal influences played vital roles in this behavior.

Strengths and limitations of the study

This study was conducted in big sample size and guided by Pender's HPM. However, there were some limitations of the study. First, compared with a longitudinal study, the cross-sectional design could not explore changes in the students' hand washing behavior over time. Second, this study was confined only to the particular and specific geographical setting and the population under study. Last, this study obtained data from questionnaire only. Other collecting data may also need to be considered in future studies, such as intervention and observation.

Conclusion and recommendations

This study supported the evidence that perceptions about benefits, barriers, self-efficacy, and interpersonal influences related to how people perform their hand washing behavior. This study suggested that health care providers and headmasters of public elementary schools should develop specific intervention programs based on Pender's HPM. Innovative programs involving teachers, parents, and peers need to be considered to promote hand washing behavior in fifth grade students. Although this study provided some useful information for understanding this phenomenon, other factors related to hand washing behaviors and further intervention studies need to be conducted in the future. Multiple methods of data collection to explore the actual practice of proper hand washing at schools are also required.

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The Relationship of Borrowing Behavior on the Quality of Life in Economic: A Case Study of Early Working Age workers in Bangkok, Thailand.

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ABSTRACT

After graduation, there are some people relocating for start their work in Bangkok, the capital of Thailand where is area of diverse job opportunities and potentially of higher growth. However, the relocation required a lot of money to meet their basic needs in everyday life or to the initial capital for their occupation. Resulting, there are borrowing to make in a large number of them. This study investigated borrowing behaviors of early working ages (Between 20-35 years old), the demographic factors that influence on their borrowing behaviors and to study the relationship of borrowing behaviors on the quality of life in economic.

Data were obtained, using sampling of 394 people of early working ages choosing by simple random sampling method in various areas of Bangkok, by questionnaires. The Data were analyzed using descriptive statistic, percentage, frequency and Chi-square test. The analysis of data found that majority of sampling are male, the marital status is single, have the highest education of bachelor degree, working for employee in private section, government officer and the business owner, income is less than 10,000 Baht or $312.98[1] and in between 10,001-30,000 Baht or $312.98-$938.96. [4]

For analysis of borrowing behaviors of early working age in Bangkok, Thailand found that 116 or 29.4% of the sample have taken borrowing with currently accounts is less than 50,000 Bath or $1,564.95[1] in 1-5 years for average period of loan. Purpose of the loans was a fund for a career, for use in daily life respectively and for higher education. Borrowing source from commercial bank, relatives and leasing company. The demographic factors that influence on borrowing behaviors are gender, married status and current occupation. And the factors the effect on their borrowing decision making are available in loan process average, credit without collateral to approve the borrowing and the average borrowing interest rate respectively.

From hypothesis testing, it was found that no relationship between amounts of borrowing on the quantitative quality of life in economics but there are some relationship between amounts of loan to the qualitative quality of life in economics included: level of satisfaction in feeling on stability and safety in their life, satisfaction in their health care spending and satisfaction in their spending on special occasions.

Keywords: borrowing behavior, Quality of Life

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4 Exchange rate of 31.95 Baht = US $1 on 15 September 2013

INTRODUCTON

Global economic crises have impact to regular income of low income workers. Especially the workers who just entered workforce or early working age workers (between 20-35 years old). They have faced a problem with steadily rising expenditure while there is low income and low savings. Data from Thailand's National Statistic Office (NSO) showed average expenditure per month of the people in Bangkok, the capital of Thailand, in the year of 2010, is 9,248 Baht or $289.45 while their average income per month is 11,829 Baht or $370.23.

Under conceptual of Franco Modigliani, Albert Ando and Richard Brumberg about life-cycle theory of consumption (Deaton, 2005) that were applied by many researchers for explain to borrowing behavior such as Yun Kim, Mark Setterfield, and Yuan Mei (2013), Sofia N. Andreou (2011), Tullio Jappelli1 and Luigi Pistaferri (2010), Pierre-Olivier Gourinchas and Jonathan A. Parker (2002), Beryl Y. Chang (2005). The theory postulated that individuals try to maintain a fairly smooth pattern of consumption over their lifetimes. Each individual base their life-time expenditure on the expected flow of income over their lifetimes rather than just their current income. Credit markets can help individuals in achieving their consumption objectives in several ways. If, for example, an individual expecting higher income in the future wants to consume more than its current income allows, it can do so by borrowing.

Consumptions after receiving money were used both in basic needs and desires in special occasions. They spending on food, clothing, shelter and medicine for response to their basic needs and they would like to have party, fashion clothing, vehicle, appliances, traveling, or health care for their desires. However, all of the spending was expected to help them to improve their quality of life to be better. There are many researchers investigated indicators to assess the level of quality of life. In mostly indicators are measures of overall quality of life of the people such as GDP (Gross domestic product) and some are specific indicators such as the quality of life model of ESCAP (United Nations, 1995) that explores the quality of life of individual in Asia and the Pacific in seven elements are: (1) health (2) education (3) the working life (4) the physical environment. (5) the family life. (6) the life of the community, and (7) the cultural life and model of World Health Organization's (WHO) that identified individual subjective indicators to measure the level of quality of life. It was grouped the quality of life into six areas: (1) the body (2) psychology (3) the level of independence of individuals (4) social relationships (5) environmental and (6) the mind. (World Health Organization, 1998). In Thailand, indicators to assess the level of quality of life for Thai people were developed from many Thai government agencies as well. The indicators for measure level of quality of life in economic such as Economic and Social Index of Thailand's National Statistic Office (NSO) identified 11 indicators include population, labor, shelter, fishery, agriculture, education, health care, transportation, banking and GDP, Ministry of Social Development and Human Security investigated to measure Thai's quality of life which the indicators in economic include level of income, safety of life, transportation, health care, shelter, United Nations Development Program (UNDP) identified indicators to measure the quality of life in economic include amount of income, shelter and environment, transportation and communication, health, working, education, family and community and participation.

This research applied the indicators as above to measure level of quality of life in early working age workers. The measurements are 3 quantitative indicators include amount of average income per month, total amount of saving and total amount of assets. Moreover there are 8 qualitative indicators includes level of satisfaction on current financial position, level of satisfaction on stability and safety in today life, level of satisfaction on stability and safety in future life, level of satisfaction on amount of money for everyday spending, level of satisfaction on amount of money for special occasions, level of satisfaction on residential, level of satisfaction on health care and medical treatment, level of satisfaction on transport.

RESEARCH OBJECTIVES

The purpose of this research are to identify some demographic factors and borrowing behavior of early working age people in Bangkok, Thailand and to study the relationship of their borrowing behaviors on quality of life in economic.

So the Research Questions are:-

1. What demographic factors such as gender, married status, education level, occupation are influencing the decisions of borrowing behaviors of early working age in Bangkok, Thailand?

2. Are there some relationship of their borrowing behaviors on level of quality of life in economic or not? The quality of life in economic are including both qualitative and quantitative under the quality of life indicators.

So the objectives of the study are:-

1. To study whether differences in such demographic factors as gender, married status, education level, occupation which influence borrowing behaviors of early working age people in Bangkok.

2. To study relationship of their borrowing behaviors on level of quality of life in economic.

SCOPE OF RESEARCH

1. Scope of this research is to study the borrowing behaviors of early working age workers (25-35 years old) in Bangkok, Thailand, the sample in case of unable to identified size of the population (Suzie Sangren, 1999) at 0.05 significant. The result from calculation showed the sample sizes are 385 samples, but researchers to add about 2 % to prevent errors. Therefore, in this study sample sizes are 394 samples.

2. Data collection by closed-questionnaire that there are 3 parts as follow:

Part 1 Demographic factors of early working age are including gender, married status, education level, current occupation, total amount of income per month, total amount of saving and total amount of assets.

Part 2 Borrowing behavior of early working age are including purpose of borrowing, total amount of borrowing, frequency of borrowing, duration of borrowing, source of borrowing and factors that effect on decision making on borrowing.

Part 3 Level of quality of life are including level of satisfaction on current financial position, level of satisfaction on stability and safety in today life, level of satisfaction on stability and safety in future life, level of satisfaction on amount of money for everyday spending, level of satisfaction on amount of money for special occasions, level of satisfaction on residential, level of satisfaction on health care and medical treatment, level of satisfaction on transport.

3. Data collection period take from 9 September 2013 until 15 September 2013, for a period of one week.

4. Data collection location is Bangkok, Thailand.

METHODOLOGY

This research used a sample survey which is a non-probability sample survey to select the population to be the sample size of this research. The statistics used in this research are:

1. Descriptive statistics, showing the percentage and mean values.
2. Inferential statistics use to test the hypothesis is t-test.

Furthermore, after gathering all data concerned, the Statistical Package for Social Sciences software (SPSS) would be used for evaluation.

RESULTS

The results of the study could be summarized as follows:

Demographic factors of the respondents

There were 230 respondents who have taken borrowing in which 58.38% of total respondents. There were 120 respondents or 52.0% who were male while 110 respondents or 48.0% were male. Most are single 75.43%. The occupations of respondents were employee in private section, government officer and the business owner (68.5%). Most of the respondents (76.8%) held a bachelor's degree.

Borrowing Behaviors

Purpose of the loans was a borrowed for a career (14.8%), for use in daily life (6.9%) and for higher education (5.6%) respectively. Borrowing source from commercial bank (54.3%), relatives and leasing company (6.7%). Total amount of borrowing is almost between less than 5**0,000** Baht or $1,564.95 to $3,129.89 (39.4%), average frequency of borrowing is more than 1 year/a borrowing (47.26%), duration of borrowing is between 1 to 5 years and the factors that effect on decision making on borrowing are loan process average (26.47%), credit without collateral to approve the borrowing (18.34%) and the average borrowing interest rate (9.54%) respectively.

Hypothesis Testing

1. Influence of demographic factors on the borrowing behaviors at 0.05 significant

The results of testing hypotheses 1.1 showed that demographic factors such as gender influence total amount of the borrowing.

The results of testing hypotheses 1.2 showed that demographic factors such as married status influence total amount of the borrowing.

The results of testing hypotheses 1.3 showed that demographic factors such as education level no influence total amount of the borrowing.

The results of testing hypotheses 1.4 showed that demographic factors such as current occupation influence total amount of the borrowing.

The results of testing hypotheses 1.5 showed that demographic factors such as gender influence frequency of the borrowing.

The results of testing hypotheses 1.6 showed that demographic factors such as married status influence frequency of the borrowing.

The results of testing hypotheses 1.7 showed that demographic factors such as education level no influence the frequency of the borrowing.

The results of testing hypotheses 1.8 showed that demographic factors such as current occupation influence the frequency of the borrowing.

The results of testing hypotheses 1.9 showed that demographic factors such as duration no influence duration of the borrowing.

The results of testing hypotheses 1.10 showed that demographic factors such as married status influence duration of the borrowing.

The results of testing hypotheses 1.11 showed that demographic factors such as education level no influence the duration of the borrowing.

The results of testing hypotheses 1.12 showed that demographic factors such as current occupation influence the duration of the borrowing.

Conclusion of testing hypothesis 1.1-1.12 found that the results of testing hypothesis 1.1, hypothesis 1.2, hypothesis 1.4, hypothesis 1.5, hypothesis 1.6, hypothesis 1.8, hypothesis 1.10, and hypothesis 1.12 there are influence on borrowing behaviors of early working age people in Bangkok.

2. Relationship of the borrowing behaviors on level of quality of life in economic at 0.05 significant

The results of testing hypotheses 2.1 showed that no relationship between total amount of the borrowing and their level of total amount of income per month.

The results of testing hypotheses 2.2 showed that no relationship between total amount of the borrowing and their level of total amount of saving.

The results of testing hypotheses 2.3 showed that no relationship between total amount of the borrowing and their level of total amount of assets.

The results of testing hypotheses 2.4 showed that no relationship between total amount of the borrowing and level of their satisfaction on current financial position.

The results of testing hypotheses 2.5 showed that relationship between total amount of the borrowing and level of their satisfaction on stability and safety in today life.

The results of testing hypotheses 2.6 showed that relationship between total amount of the borrowing and level of their satisfaction on stability and safety in future life.

The results of testing hypotheses 2.7 showed that no relationship between total amount of the borrowing and level of their satisfaction on amount of money for everyday spending

The results of testing hypotheses 2.8 showed that relationship between total amount of the borrowing and level of their satisfaction on amount of money for special occasions.

The results of testing hypotheses 2.9 showed that no relationship between total amount of the borrowing and level of their satisfaction on residential.

The results of testing hypotheses 2.10 showed that relationship between total amount of the borrowing and level of their satisfaction on health care and medical treatment.

The results of testing hypotheses 2.11 showed that no relationship between total amount of the borrowing and level of their satisfaction on transport.

Furthermore, the result of testing hypothesis 2.1-2.11 found that the results of testing hypothesis 2.5, hypothesis 2.6, hypothesis 2.8 and hypothesis 2.10 there are relationship between borrowing behaviors and level of quality of life in economic.

CONCLUSION

In this study, the researcher found that some demographic factors such as gender, married status and occupation are influencing the borrowing behaviors of early working age workers in Bangkok, Thailand.

Moreover, hypothesis testing found some relationships of their borrowing behaviors on qualitative level of quality of life in economic include level of satisfaction in feeling on stability and safety in their life, satisfaction in their health care spending and satisfaction in their spending on special occasions.

Reference on The life-cycle theory of consumption to explain the result of this research, each early working age workers made decision to borrowed base on their expected flow of income over their lifetimes rather than just their current income. So there are no relationships between total amounts of the borrowing with on current total amount of income per month, total amount of saving and total amount of assets.

However, it was found that relationship between amounts of borrowing on the qualitative quality of life in economics include loan to the qualitative quality of life in economics included: level of satisfaction in feeling on stability and safety in their life, satisfaction in their health care spending and satisfaction in their spending on special occasions. The result showed satisfaction of each individual was important factor to make their feeling to be better in quality of life in economic. Especially, the feeling to be better in desires in special occasions that it more than quality of life in basic needs of human.

The recommendation from this study are Thai government agency or related parties should be make understanding to appropriate attitudes about the level of quality of life to public. Because of the misconception about measurement in the level quality of life may be spending on a luxury more than a necessity. It causes to increase amount of borrowing and debts problems as well.

For the Further research, suggestion to use conceptual framework in this research to other area of Thailand, furthermore, suggest to comparative study in many countries that have diversity of cultural may make it possible to identify new indicators to measure the quality of life indicators or found new relationships between variables.

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The Opinion of the Students in Bangkok towards the Amendment of the 2007 Thai Constitution *

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Abstract

The research purposes are to study the followings: 1) the understanding, the opinions and the attitudes of the students in Bangkok towards the amendment of the Thai Constitution of 2007; and 2) the attitudes of the students in Bangkok towards Thailand politicians' personality in amending the Thai constitution of 2007.

The target population in this research were university students in Bangkok area. The data was collected by random sampling with multi-stage sampling method of 400 students. The tool in data collection was questionnaire and the tool for data analysis was SPSS. The statistics for analyzing were percentage, mean, standard deviation (S.D.); the hypothesis testing was made by using t-test, F-test, Chi-Square test and using of Factor Analysis.

The results of study showed that most of the samples were female, for 61.2 percent. Students were undergraduates for 81.6 percent. They were third year students for 34.1 percent. Students were in field of Social Sciences and Humanities for 54.8 percent. Students in this research domiciled in Bangkok and vicinity for 36.3 percent. Regarding channel for receiving of news; sample groups had personal channel for receiving news via friends, the most of all for 48.5 percent. Students who had channel for receiving news through media via television channel, the most of all, for 21.7 percent. Sample groups having opinion towards Thai politics presently were; they felt that Thai politics was boring for 77.6 percent. Political activities that sample groups wanted to participate the most of all was: anti- corruption activities for 44.0 percent. Sample groups had personality of people who were pro- political level in moderate level (Mean = 7.38, S.D. = 3.302). Regarding opinion, most of sample groups had opinion towards the Amendment of the Thai Constitution of 2007 in each section in the moderate level of agreeing (Mean = 2.88, S.D. = 0.657).

Hypothesis testing result

1) Gender difference did not have different personal channels in receiving news and nature of Thai politicians. Educational level difference had different pro-political personality and different opinion towards the constitution amending, having statistical significance at 0.05.

2) Different years of students had different personal channels in receiving news, different pro-political personality and different opinion towards the constitution amending, having statistical significance at 0.05.

3) Different faculties that student groups were studying had different opinion on present Thai politics and different pro-political personality, having statistical significance at 0.05.

4) Different domiciles had different opinion on present Thai politics, different opinion on personality of Thai politicians having nature of Machiavellian and Conservatism, having statistical significance at 0.05.

5) Opinion on present Thai politics had relationship with groups of major subjects, having statistical significance at 0.05.

Keywords: Constitution, politicians' personality, opinion.

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Introduction

Thailand is a country with long history, especially regarding government change. The rule of the absolute monarchy in which the king was the supreme authority of the country was used until 1932 that there was a rule change called "Democracy" which was a major change of Thailand politics and government having aims to step up to reach the free world.

After the change of government to democratic regime, Thailand promulgated 18 constitutions to be the law on organizing of the administration of the country. This represents the country's political instability. Most of the constitution came from struggle and usurping of government power among the ruling parties. Some editions have come from the life and the blood of people. Chaowana Traimat (1997) summarized about the Constitution of Thailand of various editions in the past that most of the constitution editions of Thailand contributed to usurping of power and termination of power of government by force, which was the means of violence. The constitution of Thailand mainly focused on promoting authority of government over the recognition and the guarantee of the rights of the citizens (Witayasorana, 1999).

The constitution of the Kingdom of Thailand BE 2550 (2007) is the 18th constitution written by the Constitution Drafting Assembly of Thailand in the years 2006-2007 after the Coup on 19 September 2006. This constitution is the first Thai constitution that after completely drafting and it obtained public opinion from the legislative section, it has been published to the public and there was organizing of a referendum to seek approval of people. The results showed that 57.81 percent of the referendum approved the draft constitution.

In the situation that required to move the country to a complete democracy, there was an election in 2007 to solve problems of the constitution of 1997 that caused a state monopoly and the power exercising unfairly, lack of political transparency, there was no morality and virtue, monitoring system regarding using of state power failed and there was no full protection and promotion of the rights of citizens. The constitution of 2007 focused in significant substance on solving such issues. The constitution promoted and protected the rights and freedom of people fully, reduced and eliminated the use of state power monopoly unfairly, it made politics to be more transparent, having morality and ethics and monitoring system was strengthened and carried out more efficiently. From the significant substance of the constitution, public political participation has been more promoted. Exercising of power of the state government wrongfully could be checked more easily.

Political participation of youth in the past was shown in the opportunity for all young people aged full 20 years to be eligible to vote. However, in reality, it could be seen that those under 20 years of age who were in study age expressed political movements that caused changes at the national level as many times as the demonstration of students and the public in the 14 October 1973 event, 1992 event of Black May, etc. Until later time, there was promulgation of the constitution of 1997, there was change that voters could be changed from age 20 years to 18 years old (Mayuree Thanomsuk, 2007), It was a major change for young people and students to take the role and have greater political participation .

Students who have been referred to as " intellectuals" are a group of people being important force of the nation. They should take the politically initiative role, acting to claim for benefits for the public; and they should be the counter-balance of power of politicians in various issues; and they should represent people in political activities which will lead to development of the country and sustainable democracy further.

From the origin and significance of the problems as mentioned above, the researcher is therefore interested to study the opinion and attitudes of students towards the amendment of constitution of 2007, as well as attitude towards Thai politicians' personality in the opinion of students. This is interesting political dimension. The group of students is an important group for the development of the country. The data from this research will be a major benefit to the development of Thai politics to go further to be more complete democratic regime in the future.

Purpose of the research

1. To study about attitude of students in Bangkok towards amendment of the constitution of 2007.

2. To study about exposure to obtain news regarding the constitutional amendment and political involvement of students in Bangkok.

3. To study about attitude of students in Bangkok towards personality of Thai politicians.

Research methods

This study surveys whether the different characteristics of the population will have different attitude towards the amendment of the constitution 2007 and towards the personality of Thai politicians. The population used in this study is university students in 10 public and private universities in Bangkok. The selection of the sample groups utilizes the random multi-stage sampling, starting from simple random sampling, by drawing lots to select sample universities, numbering five institutions, dividing to be three government universities and two private universities. In this study, the random sampling consisted of 400 people and there was selection of samples from the five academic institutions by random sampling in type of Accidental Sampling.

Tools used in the research

Questionnaire has been used as means for data collection. It consisted of four sections, namely:

Section 1: eleven questions on demographic characteristics of the sample, including gender, age, years of educational level, area of study, general opinion towards Thai politics and leadership personality.

Section 2: three questions about how to get the information and news.

Section 3; 20 questions about getting to know the personality of Thai politicians. The nature of the question with rating scale of 7 levels on the basis of the attitudes or feelings in the form of Osgood 's Scale.

Section 4; twelve questions about the attitude towards the amendment of the 2007 constitution. The nature of questions is in type of ratings scale 5 levels. Each question, the criteria for giving marks was divided into five levels according to the scoring criteria to measure the attitudes of Likert Scale.

Data collection

The researcher collected data from a sample group of 400 university students in Bangkok by having questionnaires and having experiment for collection of data from the target group of 30 persons. The reliability was analyzed by means of Cronbach Alpha. The reliability was obtained at 0.883. Then questionnaires were taken to collect information from students, data was collected, accuracy was checked and then the data was analyzed by statistical methods further.

Data analysis

Data analysis is divided into the following steps:

1. Analysis of data uses descriptive statistics by using frequency, percentage and standard deviation in order to explain basic data of the sample group.

2. Analysis of data used in hypothesis testing is inferential statistics.

2.1 Using the test of the differences between sample group categorizing by demographic characteristics and attitudes towards amendment of the constitution of 2007, using statistical test (t-test) in the test of mean of two groups of population. The researcher used F-test to test the average population of more than two groups, having statistical significance at the 0.05 level.

2.2 The Chi-Square test was used to examine the relationship between two or more variables.

2.3 Factor analysis was used to reduce the number of variables from several variables to just a few factors; there should be the fewest number of factors as few as possible (Siriwan, 2003).

Result

The study results revealed that most of the sample group was female, to be in percentage for 61.2 percent, as undergraduates, to be 81.6 percent, College years in Junior to be 34.1 percent, in the Social Sciences, to be 54.8 per cent, domiciled in Bangkok and vicinity was 36.3 percent.

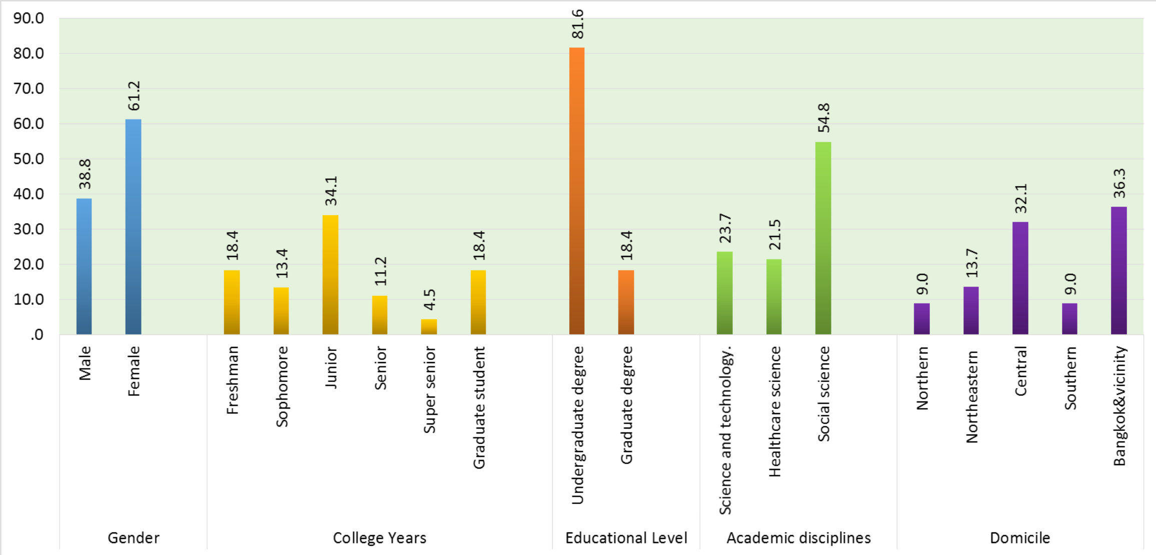

Figure 1. Demographic data of sample group, specifying gender, college years, educational level, academic disciplines and domicile

Channels of news consumption

Sample groups could receive news through group of friends was 48.5 percent whereas through media; namely, television at 21.7 percent. In addition, sample groups had opinion on Thai politics today that Thai politics was boring for 77.6 percent. Political activities that sample groups wanted to join was counter-corruption, to be 44.0 percent.

Personality of people with pro-political sympathies

The personality of people with pro-political sympathies had scores in the level which used the average basis of Best, 1997 as follows:

Average between 3.0-7.0 had personality at a low level.
Average between 7.1-11.0 had personality at a moderate level.
Average between 11.1-15.0 had personality at a much level.

Table 1 *Marks of personality of Pro-politics classifying by demographic characteristics*

Demographic characteristics		Mark level		
		Mean	S.D.	Result
Gender	Male	7.76	3.309	Moderate
	Female	7.14	3.283	Moderate
Educational levelal Level	Bachelor's Degree	6.92	3.235	Less
	Graduates	9.41	2.813	Moderate
Academic disciplines	Science and technology.	7.57	2.931	Moderate
	Health Science	5.95	3.186	Less
	Social Science	7.66	3.264	Moderate
Domicile	North	6.19	3.197	Less
	Northeast	7.80	3.461	Moderate
	Central	7.40	3.378	Moderate
	Southern	6.72	3.300	Less
	Bangkok & vicinity	7.66	3.150	Moderate
Total		7.38	3.302	Moderate

The results showed that Sample group had marks of the personality of a political sympathies being moderate (Mean = 7.38, S.D.=3.302) by male graduate students, Social Sciences Group and domiciling in the Northeast had the marks of personality of pro-political sympathies in moderate level the most of all. The mean was (Mean = 7.76, S.D. = 3.309), (Mean = 9.41, S.D. = 2.813), (Mean = 7.66, S.D. = 3.264) and (Mean = 7.80, S.D. = 3.461) respectively.

Comments on the amendment to the constitution of 2007 in each section

The study found that the majority opinion of sample groups towards the amendment of the constitution of 2007 in each section are in moderate level (Mean = 2.88, S.D. = 0.657), with comment in moderate level about Section 118 showing that there should be election within 45 days after the end of the term of office of Senators (Mean = 3.10, S.D. = 0.962), followed by Section 120 the opinion was in moderate level; that there should be an election to replace Senator vacant positions within 45 days (Mean = 3.04, S.D. = 0.920), there were sample groups who disagreed with Section 241 that prohibited the arrest or investigation, MP or senator in an election period, except with the permission of the EC or there was arrest when they were offenders (Mean = 2:57, S.D. = 1.039)

Study regarding the opinion towards Thai politicians

Study regarding opinion towards Thai politicians used the method of clustering using factor analysis of the data in the first stage by measuring of the correlation among all measurements. The measurement used to measure the same variable most highly correlated than 0.3 (Barbara and Linda, 1996). The second level extracted factors by Principle Component Analysis by rotation of axial by using the method of Varimax; the criteria for the selection of factors was to have the Eigen value greater than 1 and the measurement of each factor should have value of factor Loading for more than 0.5 (Hair, 2538).

The result of Factor Analysis eliminate 20 measurements, to be remaining 18 measurements, measurements in each factor, which has been cut out as the measurement had value of Factor Loading less than 0.5.

From measurement analysis which have been left for 18 measurements, there was result that factors had result on personality of Thai politicians; new factor group consisted of 2 factors, including: 1) Machiavellian and 2) Conservatism. It can be explained about Total Variance Explained, to be 58.899 percent and the two factors had Eigen Value or combined value for more than 1, to be values of 6.386 and5.394, respectively.

The channels for perceiving personal information, classifying by demographic characteristics

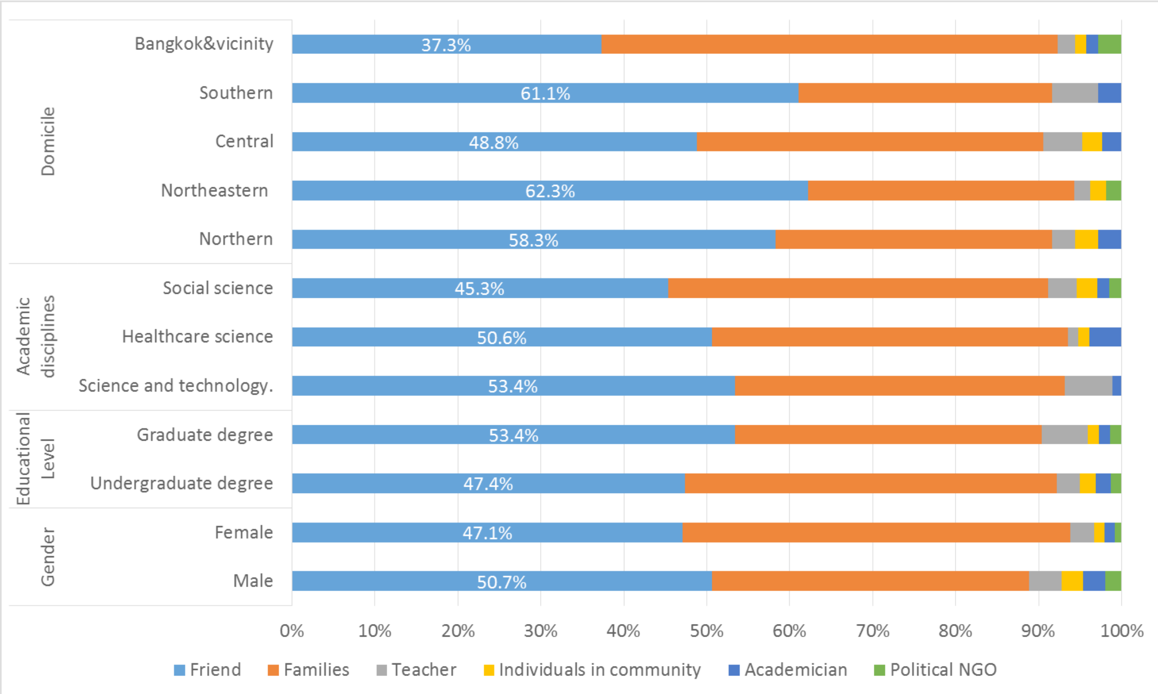

Figure 2. Shows the channels for perceiving personal information, classifying by demographic characteristics.

From figure 2, channels to perceive personal information by demographic characteristics. In overall view, the sample group under demographic characteristics, perceived personal information with a group of friends the most of all. The second level was by individual families and the least was political NGO. When the opinions were divided by gender, Educational level, Academic disciplines and each Domicile, it was found that male graduate students, Science and Technology Group, and Northern students had recognized with friends, to be 50.7, 53.4, 53.4 and 62.3 percent, respectively.

Channels of information through the media classifying by demographic characteristics.

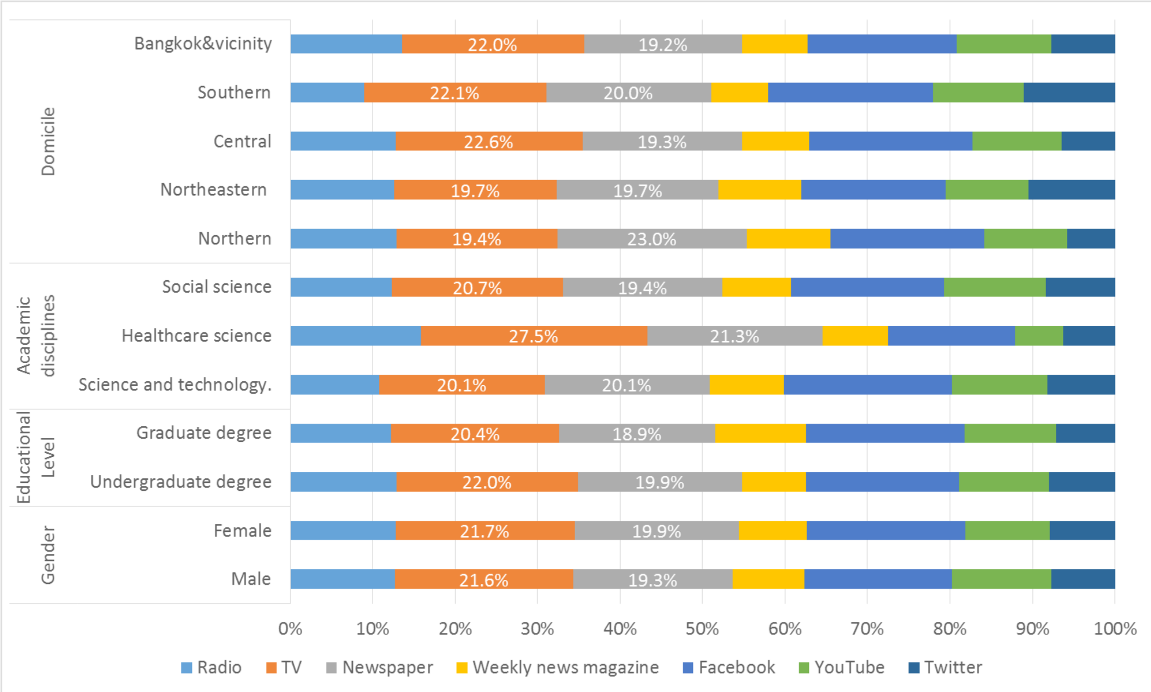

Figure 3. Shows the channels of information through the media by demographic characteristics.

From Figure3, channels of awareness about the information through the media, classifying by demographic characteristics. In the overall view, the sample groups according to the demographic characteristics had awareness about the information through the television the most of all. The second level was newspapers and the least was on Twitter. When the channels were divided by gender, Educational level, Academic disciplines and each Domicile, it was found that female undergraduates and Health Science Group had been recognized on television the most of all, to be 21.7, 22.0 and 27.5 percent, respectively , the Northern perceived news through newspapers the most of all, to be 23.0 percent.

Opinions towards Thai politics at the present time, categorizing under demographic characteristics

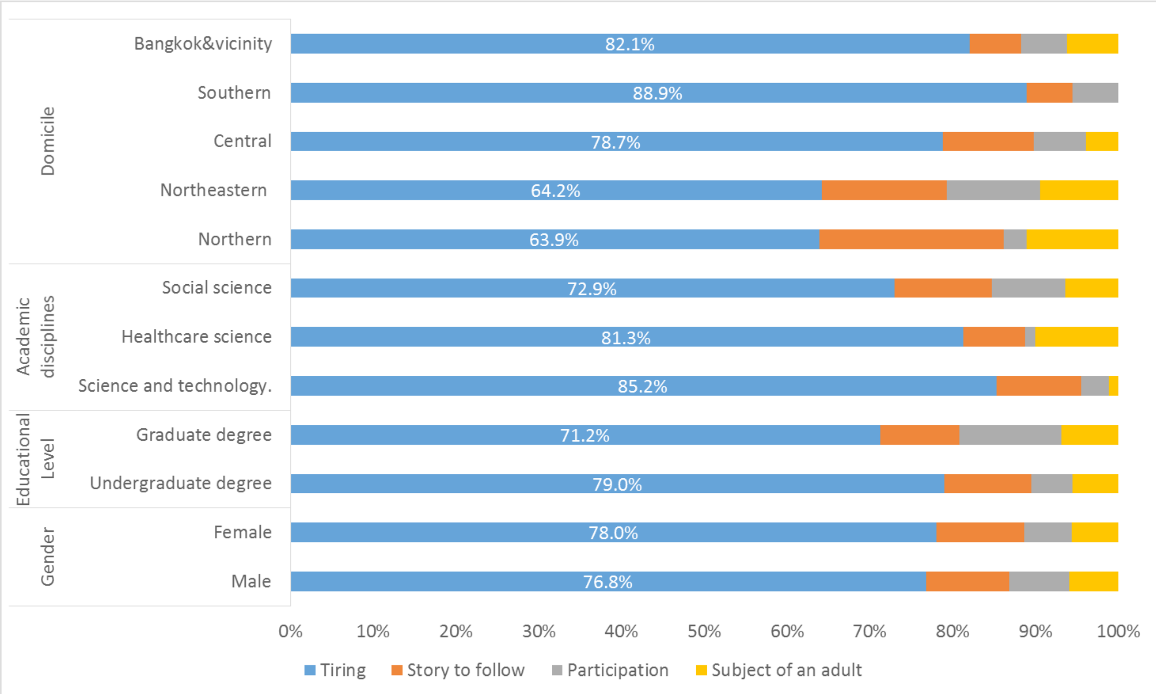

Figure 4. Showing opinions towards Thai politics at the present time, categorizing under demographic characteristics

From Figure 4, opinions on Thai politics at the present time, classifying by demographic characteristics, in overall information, it was found that the sample groups according to the demographic characteristics, had opinions towards Thai politics currently that was, Thai politics was the most tiring. The second level was Thai politics was a story to follow and the least was that Thai politics was the subject of an adult. When the opinions were divided by gender, Educational level, Academic disciplines and each Domicile, it was found that female undergraduates, Science and Technology Group, and Southern students had opinion that Thai politics was the most boring, to be 78.0, 79.0 , 85.2 and 88.9 percent, respectively.

Opinion towards political activities, which required participation, classifying according to demographic characteristics

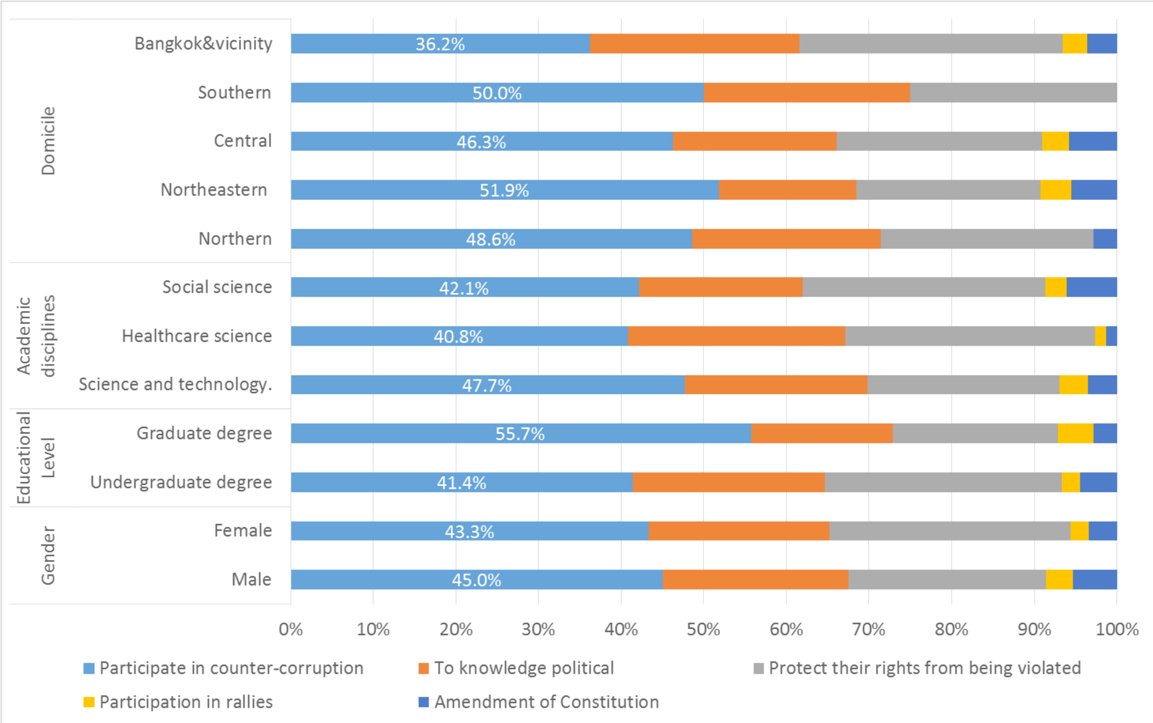

Figure 5. Showing Opinion towards political activities which required participation, classifying according to demographic characteristics

From Figure 5, it showed opinion towards political activities which required participation, classifying according to demographic characteristics. In the overall view, it was found that sample groups under the demographic characteristics had political activities requiring to participate in counter-corruption the most. The second level was to protect their rights from being violated and the least was participation in rallies. When the opinions were divided by gender, Educational level, Academic disciplines and each Domicile, it was found that male graduate students, Science and Technology Group, and Northeastern students wanted to participate in counter-corruption activities the most of all, to be 45.0 , 55.7, 47.7 and 51.9 percent, respectively.

Hypothesis testing result

1. Genders which are different had different political opinion or constitutional amendment, with statistically significant level at the 0.05 level.

2. Different levels of Educational level, had personality of the pro-political sympathies and thoughts on the amendment of the constitution of 2007, with statistically significant level at the 0.05 level.

3. The different study years, had different channel for perceiving personal information, different personality of the pro-political sympathies and thoughts on the amendment of the constitution of 2007, in each section, statistically significant level at the 0.05 level and the Scheffe test, found that:

- The first year students, fourth year students and graduate students, had different personality of the pro-political sympathies with statistically significant level at the 0.05 level. The second year students, fourth year students and graduate students, had different personality of the pro-political sympathies, with statistically significant level at the 0.05 level. The third year students and graduate students had different personality of the political sympathies, with statistically significant level at the 0.05 level.

- First year students and graduate students had different idea towards amendment of the Constitution of 2007 in each section with statistically significant level at the 0.05 level. The third year students and graduate students, had different personality of the pro-political sympathies, with statistically significant level at the 0.05 level. The fourth year students and graduate students had different personality of the political sympathies, with statistically significant level at the 0.05 level.

4. Different faculties in different groups, had different thinking towards Thai politics in the present time and different personality of pro-political sympathies, with statistically significant level at the 0.05 level. The Scheffe test revealed that students of science and technology and health science, had different idea and personality of pro-political sympathies, with statistically significant level at the 0.05 level. Students of Health Science and Social Science had idea towards personality of pro-political sympathies, with statistically significant level at the 0.05 level.

5. Different domicile had different thinking towards Thai politics currently, character of politicians having Machiavellian and personality of conservative politicians, with statistically significant level at the 0.05 level. When testing with Scheffe, it was found that students who were domiciled in the Northeast had different opinion from the opinion of the Southern Domicile towards conservative politicians, with statistically significant level at the 0.05 level. Students who resided in the Central Domicile and Southern Domicile had different opinion towards personality of conservative politicians, with statistically significant level at the 0.05 level.

6. Thoughts about Thai politics currently had relationships with faculties of sample groups, with statistically significant level at the 0.05 level.

Discussion of study result

The channel of the news consumption of the students is mainly through personal contacts. (48.5 percent), which makes sense in light of the current lifestyle of being less at home and universities provide wider forums for students to participate in exchanging political ideas. This however, must be practice in caution as it may lead to vital crash of ideas.

As for the channel of the news consumption of the student from the media is largely via television (21.7 percent). Therefore, it urges televised news to be presented in a manner, which promotes neutral news or information reporting on one hand and do not encourage violent on the other hand.

Nonetheless, this research is able to shed light on the opinion of the students to the current political dilemma and it discovered that 77.6 percent of the sample is fed up and bored with the situation.

Furthermore, 44 percent of the students remain active in promoting anti-corruption campaigns. It is therefore suggested that more activities are needed.

Presently political news affected opinion of students that Thai politics was boring, for 77.6 percent. At the same time, students had interest to participate in political activities, in counter-corruption the most of all, for 44.0 percent. Therefore, there should be activities for campaign to create consciousness of civilians to the youth more.

Another aspect in this study indicates that the student's opinion towards personality of Thai politicians was found that students looked at the personality of Thai politicians in two ways; Machiavellian and Conservatism, showing that students still looked at figure of politicians with negative view, it might came from the image of the politicians appeared in the media, so politicians as representatives of people should have good image, being example to the youth of the nation to grow as people of nation in the future.

Comparison of students' opinion towards political activities, it was found that:

1. Gender of sample group affected on political opinion which is consistent with the research of Pakit Santiniyom et al (2007), studying on the influence of media in canvassing campaign affecting people's political participation of voters in Northeastern Domicile, it was found that different genders would have different people's political participation.

2. Different years of study of sample group affected political opinion, which is consistent with the research of Thitakarn Thanaolarn (1993) studying on communication and political participation of university students.

3. Different years of study divided according to levels of sample groups had relationship with political opinion or amendment of the constitution, which is consistent with the research of Netnapha Naphon (1995) studying on democratic political attitude: studying only undergraduate students of Kasetsart University, it founded that the different political participation of university students, it was found that years of study had different political attitudes.

4. Domicile of sample groups had relationship with political opinion or amendment of the constitution corresponding to the research of Thidarat Saensaew (2005), studying the relationship between awareness of news from media and political participation of cadets and students of Nakhonpathom Rajabhat University, it was found that different domiciles of students affected different awareness of radio news awareness, as well as awareness of news from internet and awareness of news from newspaper.

5. Different years of study had different political opinion or amendment of the constitution, marks of personality of pro-political persons and marks of opinion, which is consistent with the research of Thitakarn Thanaolarn (1993) studying on communication and political participation of university students, it was found that years of study had effect on communication behavior and political participation of students.

6. Students from different group of faculties had different opinion towards Thai politics and the result of the level of the politics interest. This is consistent with the research of Supawat Meebuntham (2003) studying on awareness of political news and political participation of university students: studying only university students, it was found that faculty of study and Academic disciplines had relationship with awareness of political news and political participation.

7. Different domiciles of the student revealed different opinion towards Thai politics. The marks of factors of Machiavellian and marks of conservative is different. This is consistent with the research of Thitakarn Thanaolarn (1993), which suggested that the domicile had effect on communication behavior and political participation of students.

8. The opinion towards Thai politics is related to the faculty that the student is attending. This is consistent with the research of Nisakorn Saensaneh (1999) that attitude and behavior regarding political participation of students from different faculties in the Suratthani Rajabhat University resulted in different political opinion.

Recommendation

Recommendation from this study

1. Compulsory university courses ought to provide students with general introduction on history, government, constitution, human rights and ethics.
2. Students need to obtain solid knowledge and understand the functioning of the government in the democratic society through curriculums and activities.
3. Government agencies should provide support to and cooperation with the university in organizing curriculums and activities.

Recommendation for further study

1. There should be a more detailed and multi-dimensional study on the opinion of the students by using in-depth interviews.
2. There should be a study on political participation of students in different universities.
3. There should be a study on various factors, which may influence political interests; for example, form of living, as well as satisfaction towards exposure to news, etc.

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Perceptions of Stroke Risk Factors and Health Practice on Stroke Prevention among Elderly with Chronic Illness

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Abstract

This study investigated perceptions of stroke risk factors, stroke warning sign, and health practice among elderly with chronic illness. Participants were 70 of old people (age $\geq$ 60) with chronic illness in Saraburi province. The questionnaires were used to assess stroke risk factors and stroke prevention practice related to detecting stroke warning signs, food consumption, exercise, and comply to treatment. Participants were female (62.9%), age 60-70 years old (61.4%), and married (75.7%). The chronic health problems were hypertension (45.7%), the combination of two illness of hypertension with diabetes or with high cholesterol (14.3%), and the three conditions of hypertension with diabetes and high cholesterol (12.9%).

Findings indicated moderate level of perceptions towards stroke risks and good level of overall health practice on stroke prevention. For each prevention behavior, the practices on observing stroke warning signs and exercise were moderate whereas food consumption and compliance with treatment were at good level. Comparison of overall practice revealed not significant difference among elderly with low (mean = 71.20, SD = 9.46 and high (mean = 72.97, SD = 10.37) stroke risks. However the mean practice scores on observing stroke warning signs (mean = 17.74, SD = 6.31 vs. mean = 20.51, SD = 6.04) and exercise (mean = 18.86, SD = 4.50 vs. mean = 19.54, SD = 3.87) were higher among elderly with high stroke risks.

Keywords: Elderly, stroke, hypertension, cholesterol, warning signs

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INTRODUCTION

Stroke is one of public health problems worldwide and classified as the second cause of death in people age over 60 years[1]. Majority of survival patients usually live with disability. In Thailand, stroke is the most common neurological disease affects 150,000 people each year or one to two cases every four minutes.[2] The increased stroke incident made 90% of the survivors often have physical disability. The cognition, perception, and mood altered as well as other social issues that diminished quality of life in various aspects depend on stroke severity.[3] In Thailand, the prevalence rate was 690 per 100,000 populations with an estimate of 496,800 patients out of 72 million people.[4] The stroke mortality in Saraburi was continuously higher than the country average in 2006 – 2009 with the 36.62 per 100,000 populations.

The present change of population to aging society in Thailand required adequate healthcare since aging is a period of change and decline in physical, psychological, and social. Seniors often have at least one or more of chronic disease including diabetes, high blood pressure, and high cholesterol as they grow in aging. The most common risk factors for stroke include advanced age, high blood pressure (systolic pressure ≥ 140 mm/Hg and diastolic pressure ≥ 90 mm/Hg), high cholesterol, and prior history of stroke, diabetes, and smoking[3]. These chronic disease can be found among 87% of Thai elderly reflect the need in taking good healthcare.[4]

A stroke occurs when there is an interruption in the blood vessels supplying blood to the brain resulting from two causes 1) lack of blood supply (ischemia) due to blood clots from thrombosis or embolism which account for an estimated 80% of strokes, and 2) excessive bleeding (hemorrhage)[5]. The limitation specific to elderly arising from changes in the physical and mental deterioration with ageing that impact on memory, thinking, learning , and intellectual abilities. The elderly with more than one chronic health problems often found down spinning pleasure for living and quality of life.

Common stroke warning signs and symptoms include face drooping, arm or leg weakness or numbness, slurred or confused speech, obscured vision, severe headache, and sudden dizziness. The signs and symptoms of stroke are often subtle therefore educating the elderly to recognize these symptoms. The transient ischemic attacks (TIA) usually disappear within 24 hours and 30% of those who have had a TIA will have an acute stroke in the future. It is importance to seek immediate medical care as a first step to improving outcomes for individuals experiencing a stroke.

The stroke incident in Saraburi has continuously higher than the country average. Stroke prevention knowledge is important for individual elderly at risk to reduce the chance of having stroke that cause disability. In order to develop the competent self-care, they need good risk factors knowledge and health practice on detecting stroke warning signs, and health promoting behaviors. According to health promotion concept[6], the awareness of thoughts and feelings towards the promotion of healthy behaviors can be fostered through focusing on benefits of the action. Self- efficacy to reduce perceived barriers can lead to changes in attitude, and behavior for better health outcomes[7]. Providing elderly opportunity to involve in the decision-making and to fellow their motivation would result in the correct behaviors that promote health. Accurate health knowledge, information, and understanding are important to sustain the practice of healthy behaviors among seniors lived in Saraburi.

OBJECTIVES

The goals are for elderly to have healthy lifestyle and adequate support for healthy behaviors that reduce the risk of having stroke and improve quality of life.

1. To explore perceptions of risk factors and health practice on observing stroke warning signs, food consumption, physical activity, and comply to treatment among elderly with chronic illness
2. To compare health practice of stroke prevention among elderly with low and high stroke risk factor scores.

METHOD

Research design

This cross – sectional survey was a pilot study before conducting stroke health education program to elderly with chronic illness. The IRB approval was obtained from the Human Research Ethics Committee at Boromarajonani College of Nursing Saraburi, Thailand in 2013.

Samples

Participants were convenient sample of 70 elderly, age 60 years old and having at least one chronic illness such as diabetes, hypertension, high cholesterol, heart disease, and lived in Saraburi province.

Measure

The instruments for data collection were questionnaires related to:

1. Demographic data was collected includes age, education, incomes, health history, health information, and chronic illness.

2. Perceptions towards stroke risk factors comprised of 7 items, response options were Don't know = 0, No = 1, and Yes = 2 (score ranged 0-14). The scale reliability was .90. Participants were categorized to "Low risk perceptions (score < 4.66)", "Moderate risk perception (score 4.67 – 9.33), and "High risk perceptions (score > 9.34).

3. Health practice on stroke prevention comprised of 25 items related to observing stroke warning signs and symptoms (7 items, range 7-28), food consumption (8 items, range 8-32), physical activity (7 items, range 7-28), and medication used (3 items, range 3-12). Response option were "Not at all practice = 1" to "Always = 4". Total score ranged 25 – 100 and categorized to "low level = score < 33" , "moderate level = score 33.33 to 66.66" and "good level = score > 66.66. The scale reliability was .70.

Data analysis

Descriptive statistics was used to analyze mean scores and standard deviation of participant demographic, perceptions towards stroke knowledge, and healthcare practice data. Analysis of Variance was used for mean score comparison between different risk perceptions.

RESULTS

Personal characteristic

Majority of participants were female (62.9%), age 60-70 years old (61.4%), and married (75.7%). Most daily healthcare was provided by their children and eligible for universal healthcare coverage. The frequent health problem were high blood pressure (45.7%), the combination of two chronic illness were mainly of hypertension with diabetes or with high cholesterol (14.3%), and the combination of three chronic illness were between hypertension with diabetes and high cholesterol (12.9%).

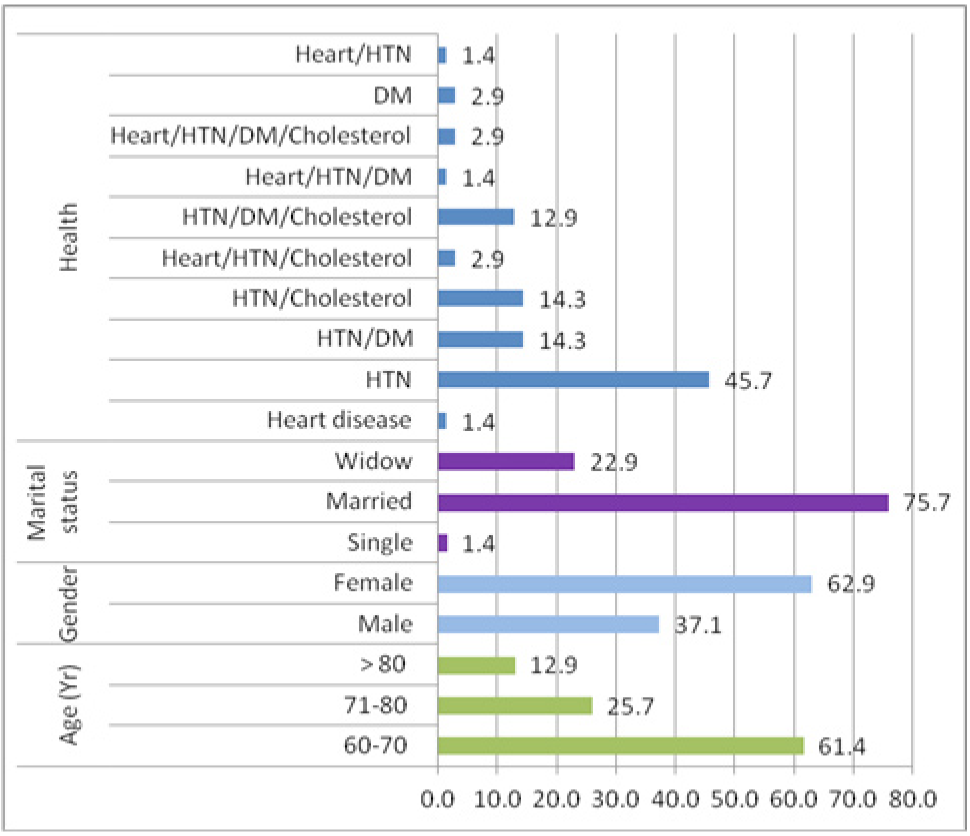

Figure 1. Participant characteristics and chronic illness conditions

Perceptions on stroke risks and health practices

Finding indicated that elderly with chronic illness in this study perceived stroke risks at moderate level (mean = 6.49 (SD = 5.19). The overall health practice on stroke prevention was at good level (mean = 72.09, SD = 2.41). For each stroke prevention behavior, the practices on observing stroke warning signs and exercise were at moderate level whereas food consumption and comply to treatment were at good level as showed in Table 1.

Table 1.
Perceptions on stroke risks and health practices on stroke prevention

Variables	Items	Min	Max	Mean	SD	Level
Risk Perceptions	7	0	14	6.49	5.19	moderate
Observe signs	7	7	28	19.13	6.29	moderate
Eating	8	14	30	23.33	3.76	Good
Exercise	7	11	27	19.20	4.18	moderate
Compliance	3	3	12	10.43	2.41	Good
Overall practice	25	52	93	72.09	9.90	Good

Findings revealed that 65.70% of elderly with chronic illness had good health practice on stroke prevention and only 44.29% had good level of perceptions towards stroke risk factors. When examined in each health practice of stroke prevention, majority of elderly were more complied with treatment of chronic illness by regularly taking medication and followed up as schedule (87.10%) and maintain healthy eating (72.90%). There were low proportion of elderly engaged in good practice of stroke prevention by routinely exercise (48.60%) and correctly observe stroke warning signs and symptoms (52.90%) as showed in Figure 2.

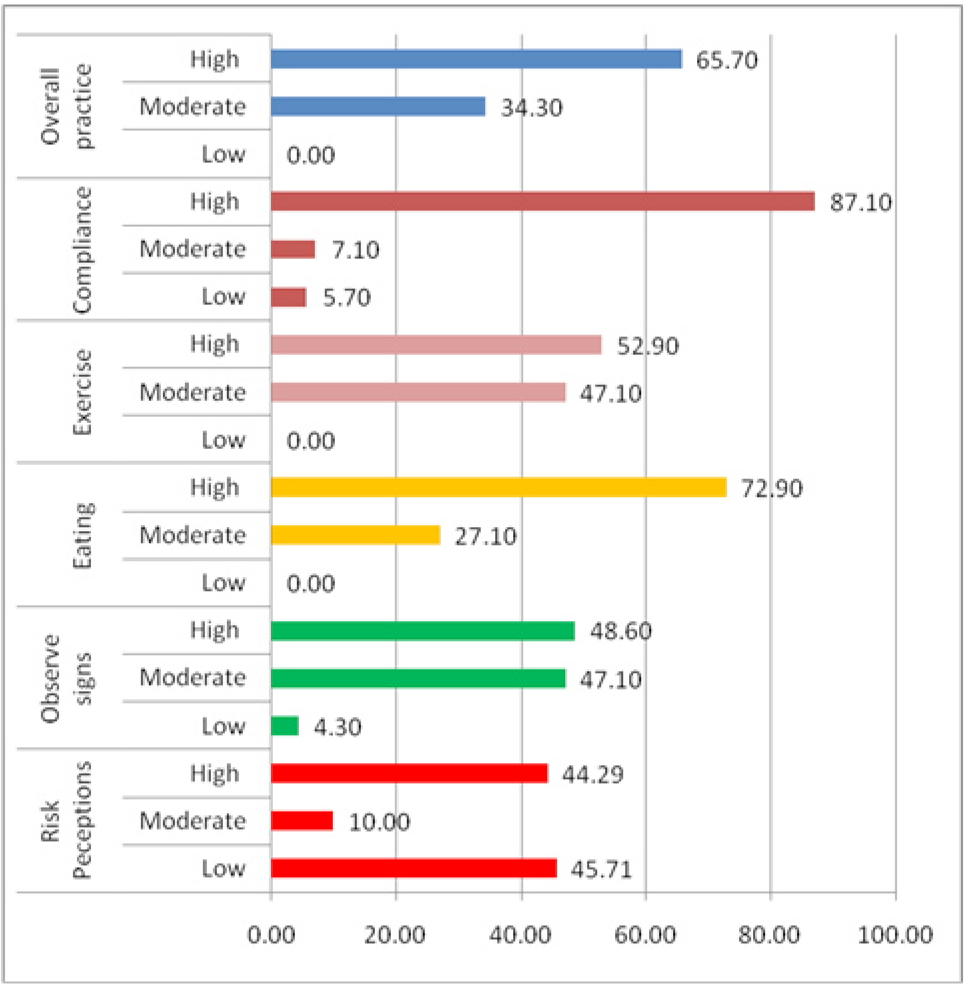

Figure 2. Proportion of elderly with chronic illness on stroke perceptions and prevention

Comparison of mean health practice scores according to perceptions of stroke risks

Finding indicated good level of overall practice on stroke prevention among elderly perceived low and high risk of having stroke. There were no significant different of mean scores comparisons between each stroke prevention behavior (Table 2). However, the elderly who perceived of low stroke risk were found to have lower health practice scores of observing stroke warning signs (mean = 17.74, SD = 6.31 vs. mean = 20.51, SD = 6.04) and exercise (mean = 18.86, SD = 4.50 vs. mean = 19.54, SD = 3.87) than the elderly who perceived high risk of stroke, respectively.

Table 2.
Comparison of mean practice scores according to perception levels of stroke risks

Practice	Perceptions	n	Mean	SD	95% CI		Level	P-value
					Lower	Upper		
Observe signs	Low risk	35	17.74	6.31	15.57	19.91	Moderate	.065
	High risk	35	20.51	6.04	18.44	22.59	Good	
Eating	Low risk	35	23.74	3.66	22.49	25.00	Good	.361
	High risk	35	22.91	3.88	21.58	24.25	Good	
Exercise	Low risk	35	18.86	4.50	17.31	20.40	Moderate	.496
	High risk	35	19.54	3.87	18.21	20.87	Good	
Compliance	Low risk	35	10.86	1.57	10.32	11.40	Good	.138
	High risk	35	10.00	2.99	8.97	11.03	Good	
Overall	Low risk	35	71.20	9.46	-6.51	2.96	Good	.458
	High risk	35	72.97	10.37	-6.51	2.97	Good	

DISCUSSION

This study explored perceptions of stroke risk factors and health behaviors on stroke prevention among elderly with chronic illness in Saraburi province. Majority of chronic health problems found among elderly participants were hypertension alone or with diabetes or with high cholesterol. Finding indicated moderate level of perceptions towards stroke risks and good level of overall stroke prevention. Health practices for preventing stroke in this study focused on self-observing stroke warning signs, food consumption, physical activity, and compliance to treatment. The health practices of elderly with chronic illness related to observing stroke warning signs and exercise were found to be at moderate level whereas food consumption and comply to treatment were at good level. Proportion of participants with correct stroke knowledge in this was 44.29% was lower than 68% found in previous public survey[8]. In this study, the stroke prevention practice by observing stroke warning signs and symptoms was 52.90% which lower than the 68% found in telephone survey in Ohio[8] and higher than the 21% found in Connecticut[9] adults.

Risks of having stroke came from chronic health problem such as high blood pressure, high blood sugar and high cholesterol, which is the modifiable stroke risk factors in contrast with the non modified risks such as age and gender.[8-11] Comparison of overall health practice on stroke prevention among elderly with low and high stroke risks revealed non significant different good prevention practice at $p < .05$. However the mean practice scores on observing stroke warning signs and exercise were higher among elderly with high stroke risk perceptions. In this research, stroke prevention practice among elderly with chronic illness seems to relate with levels of perceptions on stroke risk factors. Results of this study provide opportunity for healthcare staff to ensure that adequate helps are delivery to seniors with chronic illness in community.

CONCLUSION

In order to resolve high incidents of stroke problems, the stroke prevention should focus more on health practices of elderly at risk as an ongoing process that required consulting and keeping track on patient awareness of symptoms and stroke warning signs. Therefore, healthy behavior and good self-care in daily life can create positive health outcomes on reducing stroke incidents and consequences.

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New Media and Election Campaign in Thailand: From National General Election to Bangkok Governor's Election.

Kanyika SHAW [1]

Abstract

The rise of new media especially social media in 2009 and 2010 forced all Thai political parties to engage with them. The 2011 general election was a proof of this situation. From the total 40 parties that entered the 2011 general election, 19 parties had an official web site and 12 parties had Facebook pages. Every major party had a web site, Facebook page and Twitter account. The most active channel was Facebook, which gained instant feedback on political posts with likes and comments from party's supporters. The best party for online media strategy during the election campaign was the Democrat Party. The party created a special campaign sub-site[110] to emphasize its roadshows and on-ground events. The top party executives joined Twitter and Facebook in the usual manner. The importance of online channels during the 2011 general election campaign was reflected into the offline world. Many campaign signs and banners at the time included Facebook logos or Facebook Like icons, engaging the viewers to follow them on Facebook. Online campaigns during the 2011 general election were a good sign that political parties were already aware of online media as a new effective tool for public relations. The 2012 Bangkok Governor's election used even heavier online campaign since Bangkok citizens have the highest internet usage rate in the country. This research looks at how new media, especially new media have an impact on public opinion towards politics in Thailand through a comparative studies of two main political parties during their campaigning in the National General election and in the Bangkok Governor's Election.

Keywords: new media, political campaign, election

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Introduction

The inspiration for this topic stems from my research interests in journalism and marketing communication at the University of Thai Chamber of Commerce and personal observation of social media trends in the past few years. Social media is now a major aspect of the news media. In much news reporting on traditional media such as newspaper, television, it is not uncommon for news to refer to social media sites such as Facebook and Twitter. Moreover many politicians now utilize websites like Facebook and Twitter to reach and interact with constituents and supporters.

Thai citizens have been posting online since the internet was commercialized in 1995,however the role of online communication rose during the 2006 military coup. Since then, both the red-shirt supporters of former Prime Minister Thaksin Shinawatra and their royalist, yellow-shirt opponents have utilized online resources to mobilize constituents, contributing to the democratic election of the Pheu Thai Party and Thaksin's sister, Yingluck Shinawatra, as prime minister in July 2011.

The growth of online political behavior has been facilitated partly by the recent emergence of new interactive, media rich Web sites. These social media sites exist under the conceptual of Web 2.0. Web 2.0 includes social network sites, such as Facebook and MySpace, that allow users to create profiles and establish connections with friends and acquaintances on the Internet. Other formats, such as blogs, microblogs, and videosharing sites, among others, are also included in Web 2.0. Microblogs such as Twitter allow users to post short messages that are published online in real time. Video-sharing sites such as YouTube enable users to share user-created video and interact with other users in an online community. For all social media Web sites and platforms, an underlying commonality is the user-generated element characterized by openness and collaboration (Kushin, M.J. and Yamamoto, M., 2010).

The ability to express political views and opinions online plays an important role for social media in campaigns. - Social media allow users to not only seek information but also interact with others through online expression such as posting political commentaries on blogs and social network sites and sharing multimedia commentary. In past campaigns, Facebook users have expressed themselves politically in many ways, such as making online donations, encouraging friends to vote, or posting graphics or status updates expressing political attitudes and opinions. Twitter and blogs have been used by candidates and voters to comment on social and political issues, share information and encourage participation. Also, YouTube and CNN partnered to sponsor a debate in which candidates took questions from user-created videos as opposed to a moderator (Kushin, M.J. and Yamamoto, M., 2010).

Potential Research Results

A number of statements discuss the role of social media in Thailand politics. Most conclude that the role of social media will be "huge" in the forthcoming Thai election. However, this may be partly true since the number of users depends on many factors – one is Internet penetration.

Freedom House's report on "Freedom on the Net 2013" shows that among 70 million Thai populations, Internet penetration rate in 2012 is only 27 percent s showed in Table 1.

Table 1.
Overview of the Net in Thailand

Population	70	million
Internet Penetration 2012	**27**	**percent**
Social Media/ICT Apps Blocked	**Yes**	
BLOGGERS/ICT USERS ARRESTED	**No**	
POLITICAL/SOCIAL CONTENT BLOCKED	**Yes**	
PRESS FREEDOM 2013 STATUS	**Not Free**	

Source: Freedom House, Freedom on the Net 2013

The demographics online are also not entirely representative of the country. Urban areas, in particular Bangkok, have greater representation (proportionally) online while many of the less affluent of the population are unable to access the internet on a regular basis. Thailand's digital divide is not just the issue if infrastructure, financial constraints required to buy the necessary equipment and subscriptions mean many people's internet experience comes from cyber cafes. Although mobile technology, and the growth of smartphones, has the potential to change this in the long-term but right now they are not affordable for majority of Thais.

Moreover, there are still free speech restrictions. Censorship of political blogs by the country's active web censorship bureau is one of example. Freedom House (2012) reported Thailand is not free for Internet freedom in 2012 and partly free on 2013.

INTERNET FREEDOM STATUS	2012	2013
	NOT FREE	PARTLY FREE
Obstacles to Access (0-25)	11	10
Limits on Content (0-35)	21	21
Violations of User Rights (0-40)	29	29
Total (0-100)	**61**	**60**

Source: Freedom House, Freedom on the Net 2013

Not only the low rate of penetration, but also other obstacles are key reasons that more traditional media – such as TV, radio and print – remain a key focus for the electoral candidates.

Is social media influential in Thailand's elections?

There is no doubt that social is an important channel for Thai politicians and political parties. Not only is social media responsible for an increasing chunk of campaign budgets, but it is allowing politicians an open platform to discuss topics and present their campaign.

While Thailand's digital divide ensures that social media's reach remains limited to a niche of the population, Twitter and Facebook have helped candidates reach key influencers who, in turn, through articles, research and commentary, have influenced larger numbers of the population through more traditional media.

When talking social media in the Thai election Facebook and Twitter are the two main platforms. The following concludes how politicians and parties are using social media.

Facebook

Facebook now has 10 million users in Thailand but as yet no political party or figure has thus managed to attract even 1 million 'likes' (Abhisit is closest with more than 650,000 fans). Both the Democrats and PTP make extensive use as Facebook as an online 'anchor'. Their Facebook Pages act as a centre point from which all other activity campaign online. As Facebook updates are published to fans only and the medium has community-style platform, it can provides information to and receive feedback from supporters, thus reinforces two-way communication in real-time.

While not a tool for canvassing the mass market, Facebook has changed how parties can interact with their followers, particularly those that target urban-based internet users.

Twitter

Twitter is a niche but increasingly significant platform in Thailand. It has a far smaller pool of reach in the country than other sites, with estimates ranging from 500,000 to 1 million users or of about 1.5% of the population. Nevertheless, Twitter is becoming important tool for politicians since they can deliver short message to update personal information.

Although Twitter users are not high, it seems that it is used by key influencers such as journalists, analysts etc. in which greater influence on people opinion could be exerted.

The General Election 2011

The Democrats have launched a recruiting campaign on Facebook called "Future Thai Leaders". A week after its launch, the page has drawn more than 1,370 fans. Apirak Kosayodhin, the Democrats' campaigner and a veteran marketer said that the party used this Facebook to select future MP candidates as well as members of the party's election-campaign team. They also planned to get the virtual face-to-face treatment of an interview via Skype for those who lining aboard.

Each of the party's MPs have a Facebook or Twitter account, Apirak said, adding that the sites will be used as communication channels so that MPs can learn earlier what is happening in the electorate, and fans can keep up as well.

According to Apirak, about 60 Democrat MPs are using Twitter, Facebook or YouTube. Active users and fanpage owners include Prime Minister Abhisit Vejjajiva - who has received 568,160 "Likes" - Finance Minister Korn Chatikavanij, former PM's secretary-general Korbsak Sabhavasu and former Bangkok governor Apirak. The Democrat Party Thailand's fanpage has received 11,163 "Likes" (in 2011).

Pheu Thai, on the other hand, is using social media to represent the party as a whole. This may be because the party's popularity can overshadow that of individual candidates.

From my own survey, Pheu Thai Party began actively using social media around the end of 2010, just few months before election. However, more and more Pheu Thai and red-shirt supporters have been using social media as a platform to express themselves. Nevertheless, all the Twitter, Facebook and YouTube posts are linked to the party's website, www.ptp.or.th. Pheu Thai Party's fanpage has 3,256 "Likes", Twitter has 1,032 followers (in 2011).

Bangkok MP Anudith Nakornthap, who is in charge of Pheu Thai's graft-busting team, said 90 per cent of the target audience for the party's social-media efforts were people who already supported the party.

"Interactive communication allows us (PTP) to evaluate people's attitudes towards many things. About two weeks before the palm-oil shortage became an issue in the media, people were posting their complaints on Facebook, so we knew the information," Anudith said, adding that mobile Internet [smart phones] make it easy and convenient to check out information and reply. Anudith's anti-corruption fanpage has 1,078 "Likes", while his personal page has 5,005 friends. PTP also used social media to launched a "Five Failures, 10 Tolerance" campaign attacking the government. Now it has more than 50 "Likes".

Some of the Chart Thai Pattana Party's MPs have used the social media, but the party is very new to social networking. It joined Facebook just a few days ago with all the posts linking back to its website www.chartthaipattana.or.th. It has received only one "Like" so far. While Bhum Jai Thai Party's fanpage has 449 "Likes", while its Twitter @bhumjaithai has 228 followers. The latest update of this account, however, was on January 11.Party

The Bangkok Governor Election

It could be said that the Bangkok Governor Election 2013 mark a change in election campaigning in Thailand, with the increasing role of social media, e-commerce and e-marketing. Independent candidate Suharit Siamwalla once said that he had spent "hundreds of thousands of baht" so far on the election campaign although the legal limit is Bt49 million (S$2.02 million).

According to http://realtime.zocialeye.com/bkk2013/, which tallied the "mentions" each candidate received on social media, Suharit ranked third at 16.7 per cent of total mentions, 83 per cent of which mentioned him positively. Pheu Thai Party candidate Pol General Pongsapat Pongcharoen had the most mentions at 47 per cent, of which 66 per cent were positive. Sukhumbhand received about 30 per cent of the mentions with 70 per cent positive. Sereepisuth Temeeyaves received about 6 per cent of mentions, 74 per cent of which were positive.

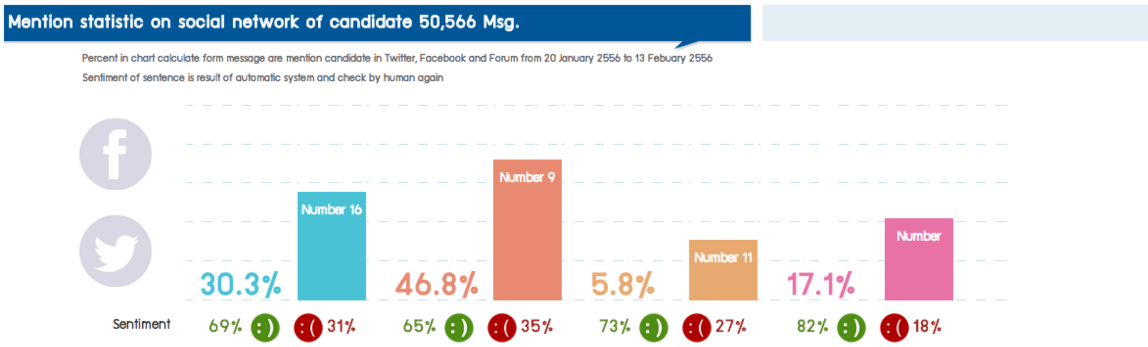

Figure 1. Summary of candidates being talked about and comment sentiments (January 29, 2013) - See more at: http://blog.zocialinc.com/monitoring-bangkoks-mayor-election-in-the-online-world-with-zocialeye-realtime-published-on-january-29-2013/#sthash.K5SFbYGn.dpuf

Sukhumbhand had the most access to his online audience as he had more than 237,633 followers on Facebook, Twitter and Instagram combined, although there might be some overlapping. Sukhumbhand said he focused more on a conventional election campaign than using social media for which he relied on 4-5 helpers who relayed questions and reported to him, but he agreed about the increasing role of social media. Sereepisuth followed Sukhumbhand with nearly 220,000 followers while Suharit was third with about 132,721. Pongsapat had 118,201 followers.

Figure 2. Summary of social network penetration for each candidate (January 29, 2013) - See more at: http://blog.zocialinc.com/monitoring-bangkoks-mayor-election-in-the-online-world-with-zocialeye-realtime-published-on-january-29-2013/#sthash.K5SFbYGn.dpuf

Independent candidate Wittaya Jangkobwattana, No 24, said social media could be more reliable than opinion polls. "These [social media] are more reliable than polls. They can be verified," he said.

Sukhumbhand referred to social media as 'Social media is power', as more and more people will be part of the online world.

Conclusion

From the above review, it can be concluded that social media has played and will continue to play a significant role in political campaigns. Also, it seems that social media has continued to be increasingly used in political campaigns since the flagship of Mobile Mob in the 2006. There have been many changes in social media – politicians have adapted to those changes by creating new social media strategies. There are still many problems with social media use – censorship, low penetration, financial constraints.

As far as the future use of social media, it can be concluded that though traditional means of communication like fundraisers, visiting people in person, i.e. will continue to be utilized in political campaigns, social media will play an ever increasing role in campaigns. Through platforms like Facebook, Twitter, and so on, political candidates will continue to interact with supporters and receive support.

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Exploring City Attachment Through the Lens of Media System Dependency Theory---A Case Study of Hefei City in China

Liang Shi [1]

Abstract

The relationship between the mass media and the community is an important area in the communication research. In China online communities are increasingly important to general public, but there is little theoretically based research on what are the effects the online community to the offline community.

This study investigates the role of local website play in the local community attachment formation through the lens of the media system dependency (MSD) theory. The study performs an empirical research taking the Hefei city in China as the case study. Based on a stratified sampling survey of 440 Hefei residents, who completed the questionnaire that contains the measures of local online MSD, local community attachment, Internet usage, and demographic characteristics, The study also examines the possible influence factors which the local website affect the local community attachment on the micro-level, such as the local news acquisition, local intimate relationship construction and the local activity participation. On a general level, results show that local website plays an important role in local community attachment construction.

Keywords: Media system dependency, local community website, community attachment

1 University of Science & Technology of China, Hefei University of technology.

Introduction

Mass media and the community is an important area in the communication research, Earlier research has found that the media affects the community attachment, such as, Janovitz M (1952) finds that the local newspaper plays an important role in the community integration; Wang Xiaohua's study shows that the newspaper helps immigrants to adapt to the society.

These researches are conducted under the background of traditional media with the Internet becoming increasingly popular in the modern society, what's the influence of new media on social capital and community attachment?

Different scholars see hold the different opinion to the question. In the optimist's opinion, the Internet can help people to form more diverse social ties and enhance people's social capital and community attachment (Katz, etc, 2001; Kavanaugh, 2005). However, the negative view points that the internet confines people to their home and reduces the communication chance of face to face and the possibility of public participation.

In China, with the development of urbanization, the traditional interpersonal communication is changing. Some scholar (Wang Liang, 2006) indicates that the Chinese community attachment is not high. In this situation, rebuilding the community attachment is especially important.

On the other hand, urban community website is booming and serving for a certain geographical area. The local websites provide more regional information and interactive features. Then, whether the local website increases people's community attachment, or just as some scholars' dispute, dependency on the network media will reduce the social capital? These are all significant practical problems.

Consequently, an important area of study within the sphere of communication is to explore the functions of internet from the user's perspective, including individual media relations and any derived effects. One approach, which has permitted in-depth study of individual media relations, is the "media system dependency theory" (Ball-Rokeach et al., 1985; Loges, 1994), which has been used as the conceptual framework for our study.

This paper aims to present an in-depth study of Local internet dependency, their background and their impact on the community attachments.

Considering there are very little empirical research study the media dependency and community attachment, this study choose Hefei city, a capital city of central China , as the case to studies the effects of local network on community attachment.

Literature review:

Community attachment

The concept of community can be referred to not only surrounding neighbors, one university community, virtual community and any other small communities, but also the big community like a city. In this study, the community mainly refers to Hefei city.

Some scholars have analyzed the factors affecting community attachment. John D Kasarda & Morris.Janowitz (1974) have studied the community attachment model in the mass society, which finds that the factors like living time of community residents, participation of community activities and the relationship between the community residents (friends, relatives, and the general local contacts) are the main ones to influence the residents' community attachment.

Community attachment is regarded as an important field or dimensionality of social capital (Gui Yong & Huang Ronggui, 2008; Wellman, 2003). Putnam (2000) shows that the mass media represented by television reduces people's social capital. Kavanaugh (2005) indicates that face-to-face interaction is more likely to have common friends and acquaintances than the communication through computer. However, some other scholars showed that the Internet, especially local website, can promote the community attachment. According to Ball-Rokeach (2001), the virtual society and realistic society is not a zero-sum game, but a relation of mutual promotion. People with higher community attachment always have more online interactivity, and are more likely to set up new social ties through the internet.

Media System Dependency (MSD)

MSD has been defined as "a relation where the individual's capacity to reach his or her objectives, depends to a certain extent on the medium's information resources (MSD)" (Ball-Rokeach et al, 1985). We have defined local internet dependency as "a relation where the individual's capacity to reach his or her objectives, depends to a certain extent on the local Internet information resources".

Proposed by Ball-Rokeach and Defleur(1976), media system dependency (MSD) theory state that an individual's use of media is determined by the interrelations among social systems, media and audience. It proposes that individuals depend on media as an information resource to achieve personal and social goals. Individual dependency has three dimensions: play, orientation and understanding (Ball-Rokeach,1985). Each of these categories in turn divides into a personal and social dimension, to give six levels of media dependency relations.

As MSD theory is regarded as a typical ecological communication effect theory, various researchers and research groups investigate various filed through the lens of media system dependency theory more than 30 years.

Previous research has shown that MSD is related to attending to and use of traditional media such as newspaper and television (Loges and Ball-Rokeachl, 1993; Rosenstein, et al, 1997). There are also some researches focused on the internet dependency. Loges (1994) found that gender (in magazines), age (in the radio, newspapers and magazines) and educational level (in radio and television) are the main predictors of dependency, while income was rarely a relevant variable in the analysis. Some researchers study the relationship between online MSD and the user's behavior or attitude, Kim, etc (2004) analyzed the relationship between Internet access before and after "911" and the communication behavior of media dependency; Blass SS, (2008) exploring how the Internet user's MSD influences their attitude and behavior to B2C e-shopping; Chei Sian Lee (2011) analyzes You Tube emotional expression through the MSD theory.

Very little research has focused on the relation between Internet dependency and community attachment. Whether media dependency still be a driving force when traditional media have been seriously challenged by the new media. More importantly, will media system dependency play a role, in explaining the relationship between the local website and city community attachment?

Hypotheses

The review of media system dependency suggests that,

According to the literature review and the purpose of this study, the research questions are as following:

RQ: What is the relationship between the local online media system dependency and the city community attachment.

Therefore, for better understanding of the relationships of media dependency to use of mobile internet, the hypotheses are proposed:

Hypothesis: The higher level of local online MSD, the higher level of belonging the city.

Method

Data collection

The hypotheses were tested by a survey of 440 residents aged 18 years or older that were interviewed in Hefei city in a Middle of the china in January 2013. The residents were selected using multi-stage stratified random sampling. First, the population of Hefei city was stratified into four districts, according to the district divide. Then each district was further stratified on streets. At last, each street was further stratified on the community. Thus the 440 respondents wear selected for the study, the door-to-door survey techniques were used to collect data for this study

Measurement

On the basis of a review of the literature and the objective of the research, the research designed questionnaire, including the sociodemographic variables as well as control variables relating to city community attachment, and scales to measure the main variables: online media system dependency and city attachment.

Dependent variable

The dependent variable city attachment was conceptualized community attachment, Several researchers have used local social bonds and sentiments as measures of attachment (Kasarda & Janowitz 1974), community attachment was measured by five statements in this research (1=strongly disagree, 5=strongly agree.),Operationally, a five-item interval scale developed by Patwardhan (2001) was used to measure respondents' self-reported community attitudes and sentiments. These are: 1= I would fell I belong to the Hefei city, 2=I am interested to know what goes on in Hefei? 3=Supposing that for some reason I had to move away from Hefei, I would feel sorry to leave, 4=I like Hefei city, 5=the development of Hefei city related to the development of myself, 6=I felt proud if I told the other people where I live, 7=I would rather stay here longer if possible, 8=When the collective interests of the community are damaged, I will attend joint actions to maintain the interests.

Independent variables

Independent variables were identified from the theoretical perspective used to guide the study. The variables were operationalized as follows:

To measure intensity of online media system dependency (MSD), the 18 item MSD scale referred to the measurement of traditional media dependency scale (Loges' ,1994) is used, which is developed and refined by Ball-Rokeach, and Grube (1984), Grant, Guthrie, and Ball-Rokeach (1991), and Ball-Rokeach, Grant, and Horvath (1995) . It measured six dimensions (i.e., social understanding, self-understanding, interaction orientation, action orientation, social play and solitary play) in the typology of individuals' media system dependencies (Ball-Rokeach, 1985). Each of the statements relating to how dependent they are on local internet, in a 5-point Likert format (1=strongly disagree, 5= strongly agree). The responses of the 18 items MSD scale were averaged to form a composite index of local online MSD.

Demographic and control variables

Previous research has shown that it is necessary to statistically control for demographics when media dependency is examined To control the effects of demographic factors, the following variables were included in the analyses: gender (male = 1, female = 0), age, gross household income, education (middle school or below = 1, high school = 2, junior or technical college = 3, university = 4 postgraduate or more=5.),

Four structural anchoring variables such as length of residence, the number of local friends, the number of local relatives, and activities taking part in t were included because of their influences on community attachments as identified in previous research.

Reliability and Validity

Previous researches have provider measurement scale for the media dependency and community attachment, but given that different cultural and research field, we will first tested the applicability of the media dependency scale developed by several researchers. Item analysis was conducted to assess reliability and validity of the composite variable.

Local online dependency scale

The scale reliability was verified, because the alpha coefficient was 0.868, which is above the 0.7, indicating a high degree of internal consistency among the items and justifying their use in a composite measure.

Based on the original scale of Ball-Rokeach et al, the media dependency scale was developed by some researches(Grant,et al,1991,) ,so the content validity of the scale was verified.

City attachment

The City attachment scale internal consistency was found to be acceptable, for the Cronbach value was 0.892. City attachment scale also based the previous research (Kasarda & Janowitz 1974), so the so the content validity of the scale was verified.

Findings

The data was analyzed using SPSS 16.There was a small amount of missing data across respondents, so the N varies slightly across analyses.

Demographic information

A total of 450 questionnaires were interviewed over a month period in January 2013, and 409 questionnaires are valid. There were 279(68.2%) internet users respondents, and 130(31.8%) respondents seldom or never use the internet. Respondents were relatively evenly distributed among males (49%) and females (51%). They were aged 16 years or above, and the mean age were 35.7(SD=14.3) Gross household income was widely distributed among respondents , and the mean gross household income was 91,100 Yuan. In terms of education, 80(20.1%) were middle school and below, 87(21.9) were high school, 56.5% respondents has a university education or higher.

Descriptive statistics

Table 1 provides data on respondents' various information sources of local news, television news and online news were viewed as most helpful in providing local news among the items assessed, online news has become the important local news information sources.

Table 1.
Descriptive Statistics of various media in providing local news

	newspaper N	radio Minimum	Television news	online	Mobile phone	Outdoor media
mean	3.04	2.23	3.72	3.33	3.12	2.51
Std. Deviation	1.291	1.156	1.127	1.424	1.409	1.167

Table 2 shows that friends and family, television, online information were evaluated most favorably activity information sources.

Table 2.
Frequencies analysis of local activity information source

	N	Percent	Percent of Cases
friends and family	168	20.8%	62.5%
organization	107	13.3%	39.8%
television	160	19.8%	59.5%
radio	35	4.3%	13.0%
magazine	17	2.1%	6.3%
newspaper	93	11.5%	34.6%
Mobile phone	102	12.6%	37.9%
online information	116	14.4%	43.1%
others	9	1.1%	3.3%
Total	807	100.0%	300.0%

Test of hypotheses

Multiple regression analysis with stepwise was used to assess the performance of the predictive model developed in this study. Community attachment was regressed against the twelve independent variables identified from theory. Five regression equations were computed. The significance of the regression models was assessed by examining the standard incremental F-tests. Findings are presented below in standardized regression form (Adjusted R-Square = .306). All independent variables are significant at the .05 levels.

$$Y=3.052+.262X_1+.242X_{2—.174}X_3+.211X_4+.180X_5$$

Y= community attachment
X_1= the length of residence
X_2= local online MSD
X_3=having children younger than 18 at home
X_4=the trust of Internet
X_5=the number of local relatives

Table 3.
regression coffience[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.750	.067		56.388	.000
	The length of residence	.005	.001	.332	3.778	.000
2	(Constant)	2.695	.312		8.634	.000
	The length of residence	.004	.001	.307	3.638	.000
	Local online MSD	.288	.083	.291	3.454	.001
3	(Constant)	2.757	.306		9.023	.000
	The length of residence	.004	.001	.286	3.458	.001
	Local online MSD	.301	.081	.305	3.695	.000
	having children younger than 18 at home	-.063	.024	-.213	-2.578	.011
4	(Constant)	2.369	.340		6.970	.000
	The length of residence	.004	.001	.308	3.779	.000
	Local online MSD	.257	.082	.260	3.137	.002
	having children younger than 18 at home	-.058	.024	-.199	-2.452	.016
	The trust of Internet	.162	.067	.200	2.414	.017
5	(Constant)	2.310	.336		6.885	.000
	The length of residence	.004	.001	.262	3.149	.002
	Local online MSD	.239	.081	.242	2.955	.004
	having children younger than 18 at home	-.051	.024	-.174	-2.152	.034
	The trust of Internet as local news	.171	.066	.211	2.584	.011
	The number of local relatives	.013	.006	.180	2.154	.033

a. Dependent Variable: community attachment

Findings suggested that the length of residence, local online MSD, having children younger than 18 at home, the perceived trust of Internet, and the number of local relatives were the predictors of community attachment. As shown in Table 3, after statistically controlling for demographic and structural anchoring variables, local website media dependency was significantly and positively related to the community attachments (ß = .2955, $p \le .01$).This is consistent with our hypothesis.

Discussion and Conclusions

In this research, we investigate the relationship between local website media system dependency and the city community attachment. Local online media system dependency would have a positive impact on local community attachment.

The length of residence was the best predictor of community attachment, which is a common finding in the literature. Our research showed that having children younger than 18 at home and the number of local relatives were the predictors of community attachment. Those who haven children younger than 18 felt less community attachment than those who haven't, and the people who have more local relatives were more likely felt the community attachment. The findings may result from the Chinese tradition and culture factors. Just as Fei (1985) used 'the pattern of difference sequence' (cha xu ge ju) as a metaphor to depict the characteristics of social networks in Chinese traditional Pattern, the relative relationship is the strong ties and strong ties play more important roles than the weak tires in china, that is why the number of friends in local wasn't significant in the regression.

The major goal in this study was to investigate the unique contribution of local website to community attachment. Regression findings indicate that the theoretical model developed in the study was somewhat useful for our purposes. Those with higher levels of local online MSD were more likely to express higher levels of community attachment.

Previous studies have demonstrated a relationship between community attachment and local news media use, the local news use is closely linked to the community attachment(Hoffman, LH, 2010). In our research the local news descriptive findings show that respondents viewed television news as most helpful among the local news acquisition, and the local online news were viewed as very helpful in providing information useful in local news and local activity taking. So we can infer that local online dependency are helpful in local news acquisition, and help for the community attachment building.

There are some limitations in this study that could be addressed. First, only one city, Hefei, was examined. Second, only 279 Internet users were interviewed, so the generalizability of the findings is limited.

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The Factors Effecting in Silk Weaving Benefit of Inhabitant in Amphoe Chonnabot, Khon Kaen Province

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Abstract

This research aims 1) To study factors which cause to Silk weaving income. 2) To study concepts and Strategies of marketing which effect to income. 3) To study attitudes of population, who weave silk, when there are many Demographic factors. The data were collected by questionnaire 400 respondents and analyzed by SPSS and assumption test by t-Test and F-Test at the significance level 0.05. Research result found 1) Most of Weavers are married woman, between 51-60 years and upper than 61 years. They graduate from primary school. Now, they earn 1001 – 3000 Baht per month. 2) Marketing strategies factor that affect to income the most is Production, the chosen material, and Prize orderly. 3) The effective attitudes of population are the Silk weaving viewpoint, Thai Culture Conservatives attitude, and moral precept about Royal Peacock signet orderly. 4) Comparing between Demographic factors and weaving benefit, Demographic factors would effect to benefit when Age, Status, Education, and period of working time are different, 0.05 the significance level of a statistical hypothesis testing.

Keywords: Silk, Marketing strategies, Attitude

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Introduction

Recently, the downturn of economics has an impact to most parts of Thailand. Meanwhile the wages remain the same and the living expense has increased. In capital city, people are independent careers, officers or labors in contrast to countryside where people are agricultural occupations and have extra incomes from handcrafts such as silk weaving.

Silk weaving is one of the Royal Projects of Her Majesty the Queen Sirikit, which is to make more incomes for inhabitant in countryside. It is a local tradition of people in Amphoe Chonnabot, Khon Kaen Province. Before it became famous, many people are farmers and make handcrafts for other benefit. Her Majesty the Queen commands to analyze why silk has a low quality and solve the problem. She gives the symbol "Peacock" to show 4 levels of silk; silver peacock, gold peacock, green peacock and blue peacock. Despite the orders inflow, no craftsmen produce the weaving products because it uses more time to produce, more creative, sophisticate and find the new target group such as teenagers.

This topic is to study the factors that have an affect to silk weaving benefit. The analysis of the research will be useful for those who are interested in silk weaving or further study.

Objectives of the research

1. To study the factors affecting incomes from woven silk.
2. To study the various factors including demographic characteristics that affects the incomes.
3. To study the marketing strategy that affects the incomes.
4. To study the attitude of people that affects the incomes.

Research Methodology

This research is to study of the factors of benefits from silk weaving of inhabitant in Amphoe Chonnabot, Khonkaen Province

1. Scope of this study is quantitative analysis. Focus on the group of people who are silk weavers in Amphoe Chonnabot, Khonkaen province.
2. The population of this research is silk weavers in Amphoe Chonnabot, Khonkaen. The number of population is not exactly because it's too large. The researchers will define sample size (n) as 400 according to the guidance of Yamane 1967, a significant level of 0.05 and at 95 % of confidence level. 400 questionnaires are distributed to people in many villages in Amphoe Chonnabot Khonkaen.
3. Using questionnaires as research tools. They are divided into 3 parts (1) information about demographics of respondents (2) the idea of strategic marketing that affect revenue (3) attitude of population.
   3.1 Review and study concepts, theories or other researches to determine the issue, variables and create the concept of this research by collecting data in interested area.
   3.2 Draft the questionnaires for the purpose of research. Considering the accuracy of the content and language used and specify main parameters in the research that affect the revenue from silk: divided into (1) demographic characteristic (2) 5 concepts of marketing strategy: product, pricing, selling, allocation of raw materials and developing of products (3) 5 attitudes of population that affect the incomes: attitude of silk weaving, attitude toward promoting Thai cultural, attitude to living and well-being of craftsmen, attitude to peacock symbol and attitude toward the stability of incomes.
   3.3 Considered the validity of draft questionnaires by field experts. The queries have an index of the consistency of each question on purpose. Using the questionnaires to silk weavers trial group (30 persons). It shows the confidence of the Cronbach's alpha coefficient (Cronbach) equal to 0.857 which is very close to 1, indicated that the questionnaires have a high reliability.
   3.4 Collecting data from 400 inhabitants in Amphoe Chonnabot, Konkaen.
4. Statistic for analysis:
   1) Percentage (%), mean ($\bar{x}\bar{x}$), and standard deviation (S.D.) to describe demographic characteristics that affect incomes, marketing strategy and attitude.

2) t statistical (t – test for Independent Samples) and F statistical (One-way ANOVA) to test hypothesis. Program used is SPSS.
   1. Different demographic characteristics affect different benefits.
   2. Different marketing strategy affects different benefits.
   3. Different attitudes affect different benefits.

5. Interpreting of the average number of points in the questionnaires criteria used as detailed:

   Average points 4.50-5.00: maximum priority
   Average points 3.50-4.49: level of significance
   Average points 2.50-3.49: medium priority
   Average points 1.50-2.59: less priority
   Average points 1.00-1.49: lowest priority

Study Results

After completed collecting data, the researchers found the information is accurate and complete then analyzing data.

1. Percentage of silk weavers: women 89.5%, age between 51-61 or over 27%, married 65.3%, educated from primary school 63.0%, be weavers more than 15 years 14.5%, benefits between 1,001-3,000 baht 29.25%
2. Marketing strategy: most of weavers use the concept of allocation of raw materials ($\bar{x}$ =4.49), factor that affect the benefits the most is product ($\bar{x}$=4.26) , predicting the quantity of silk weaving is very important ($\bar{x}$=4.34)
3. Attitude of inhabitants: most of information show the attitude towards the promotion of culture, wearing silk is an expression of the value, status person and cultural identity of Thailand ($\bar{x}$=4.71) attitude that affect to benefits is attitude toward silk weaving ($\bar{x}$ =4.65) using knowledge passed down from the ancestor ($\bar{x}$=4.70)
4. Marketing strategy (as shown in table 1):
   - 4.1 Product ($\bar{x}$ =4.26 SD = 0.94) 3 important information are 1) Modification of products 2) Prediction silk used in process 3) Pattern design for customers.
   - 4.2 Pricing ($\bar{x}$ =3.83,SD=1.25) 3 important information are 1) Difficulty of silk weaving 2) Creating innovative design 3) Creating unique pattern.
   - 4.3 Selling ($\bar{x}$ =3.57, SD = 1.33) 3 important information are 1.) Self-delivery lower the price 2) Relationship between weavers and shops 3) Distribution centers in the community.
   - 4.4 Allocation of raw materials ($\bar{x}$ =3.89, SD = 1.06) 3 important information are 1) The local used 2) Quality of silk 3) Yields in the past.
   - 4.5 Adding value of products ($\bar{x}$ =3.25 SD = 1.49) 3 important information are 1) Participation in local or national exhibitions 2) Promotion 3) The potential competition.

Table 1.
Frequency, Percentage, Mean and Standard Deviation of the Importance of the Marketing Strategy

Marketing strategy	Level of importance					$\bar{x}$	S.D.	Interpretation
	Maximum	High	Medium	Low	Lowest			
Product						4.26	0.94	Most important
1.Prediction of silk	217 (54.3)	120 (30)	47 (11.8)	15 (3.8)	1 (0.3)	4.34	0.85	Most important
2. Time	178 (44.5)	125 (31.3)	73 (18.3)	20 (5)	4 (1)	4.13	0.95	Most important
3. Pattern design	220 (55)	104 (26)	38 (9.5)	25 (6.3)	12 (3.3)	4.23	1.07	Most important
4. Changing image	217 (54.3)	131 (32.8)	34 (8.5)	11 (2.8)	7 (1.8)	4.35	0.88	Most important
Pricing						3.83	1.25	Most important
1. Different design	215 (53.8)	122 (30.5)	38 (9.5)	14 (3.5)	11 (2.8)	4.29	0.97	Most important
2. Difficulty of designing	226 (56.5)	118 (29.5)	31 (7.8)	14 (3.5)	11 (2.8)	4.34	0.96	Most important
3. Add gold braid	88 (22)	86 (21.5)	31 (7.8)	21 (5.3)	174 (43.5)	2.73	1.68	Medium
4. Unique style	206 (51.5)	94 (23.5)	34 (8.5)	16 (4)	50 (12.5)	3.98	1.37	Most important
Selling						3.57	1.33	Most important
1. Self delivery	164 (41)	131 (32.8)	70 (17.5)	24 (6)	11 (2.8)	4.03	1.04	Most important
2. Relationships between weavers and shops	126 (31.5)	142 (35.5)	49 (19.8)	20 (5)	39 (8.3)	3.77	1.19	Most important
3. Distribution centers in the community	123 (30.8)	79 (19.8)	65 (16.3)	40 (10)	93 (23.3)	3.25	1.55	Medium
4. Integration professional development	119 (29.8)	80 (20)	76 (19)	27 (6.8)	98 (24.5)	3.24	1.55	Medium
Allocation of raw materials						3.89	1.06	Most important
1. Imported silk from China	62 (15.5)	63 (15.8)	54 (13.5)	40 (10)	181 (45.3)	2.46	1.55	Low
2. Quality of silk	238 (59.5)	105 (26.3)	46 (11.5)	8 (2)	3 (0.8)	4.42	0.83	Most important
3. Lead to wisdom	255 (63.8)	99 (24.8)	36 (9.5)	6 (1.5)	4 (1)	4.49	0.8	Most important
4. Prediction of yields	176 (44)	117 (29.3)	72 (18)	21 (5.3)	14 (3.5)	4.05	1.07	Most important

Table 1.
Frequency, Percentage, Mean and Standard Deviation of the Importance of the Marketing Strategy (Continued)

Marketing strategy	Level of importance					$\bar{x}$	S.D.	
	Maximum	High	Medium	Low	Lowest			
Adding value of silk						3.25	1.49	Medium
1. Public relations	105 (26.3)	128 (32)	67 (16.8)	35 (8.8)	65 (16.3)	3.43	1.39	Medium
2. Participate in exhibitions	137 (34.3)	116 (29)	52 (13)	20 (5)	75 (18.8)	3.55	1.47	Most important
3. Potential competition	124 (31)	117 (29.3)	45 (11.3)	28 (7)	86 (21.5)	3.41	1.51	Medium
4. License	105 (26.3)	128 (32)	67 (16.8)	35 (8.8)	65 (16.3)	2.59	1.58	Medium

5. Attitude affecting benefits (table 2)

5.1 Attitude toward silk weaving ($\bar{x}$ =4.65,, S.D. = 0.7) 3 important information are 1) Knowledge from ancestor 2) Wisdom of their ancestors 3) Cherish the uniqueness of their ancestors.

5.2 Promoting conservation ($\bar{x}$ =4.61, S.D. = 0.67) 3 important information are 1) Wearing silk presents a cultural values and conservation of Thai culture 2) Proud of works 3) To instill values to young people.

5.3 Livelihood and Well-being ($\bar{x}$ =4.39, S.D. = 0.85) 3 important information are 1) Local people pay attention 2) Existence on the adequacy 3) Self-reliance.

Table 2.
Frequency, Percentage, Mean and Standard Deviation of the Reviews for the Positive Impact on Revenue.

Attitude	Level of comment					$\bar{x}$	S.D.	Interpretation
	Strong agree	Agree	Uncertain	Disagree	Strong disagree			
Attitude of weaving						4.65	0.7	Strongly agree
1. Wisdom of their ancestors	297 (74.3)	81 (20.3)	17 (4.3)	2 (0.5)	3 (0.8)	4.67	0.65	Most important
2. Cherish the uniqueness of their ancestors	290 (72.5)	86 (21.5)	13 (3.3)	7 (1.8)	4 (1)	4.63	0.73	Most important
3. Inherited pattern from ancestors	286 (71.5)	88 (22)	16 (4)	6 (1.5)	4 (1)	4.62	0.73	Most important
4. Knowledge from ancestor	313 (78.3)	69 (11.3)	9 (2.3)	4 (1)	5 (1.3)	4.7	0.68	Most important
Promoting conservations						4.61	0.67	Strongly agree
1. Shows values	272 (68)	87 (21.8)	27 (6.8)	14 (3.5)	0 (0)	4.71	0.57	Most important
2. Shows uniqueness	304 (76)	80 (20)	12 (3)	4 (1)	0 (0)	4.71	0.53	Most important
3. Proudly	301 (75.3)	77 (19.3)	17 (4.3)	4 (1)	1 (0.3)	4.68	0.63	Most important
4. Instill values	274 (99.8)	101 (68.5)	16 (4)	3 (0.8)	5 (1.3)	4.59	0.72	Most important
5. Allure of silk	254 (63.5)	120 (30)	21 (5.3)	4 (1)	1 (0.3)	4.56	0.67	Most important
Livelihood and well-being						4.39	0.85	Agree
1. Professional attention	261 (65.3)	112 (28)	19 (4.8)	6 (1.5)	2 (0.5)	4.56	0.7	Most important
2. Self-reliance	233 (58.3)	130 (32.5)	27 (6.8)	9 (2.3)	1 (0.3)	4.46	0.74	Agree
3. Attitude of weaving	4.65	0.7	21 (5.3)	6 (1.5)	5 (1.3)	4.51	0.77	Most important
Royal peacock symbol						4.49	0.81	Agree
1. Represents quality	275 (68.8)	103 (25.8)	14 (3.5)	7 (1.8)	1 (0.3)	4.61	0.77	Most important
2. Represents sophistications	277 (69.3)	91 (22.8)	26 (6.5)	3 (0.8)	3 (0.8)	4.59	0.71	Most important
3. Represents motivation	262 (65.5)	106 (26.5)	23 (5.8)	7 (1.8)	2 (0.5)	4.55	0.73	Most important
4. Represents readiness	214 (53.5)	113 (28.3)	34 (8.5)	14 (3.5)	25 (6.3)	4.19	1.14	Agree
Stability of income						4.34	0.89	Agree
1. Stability	239 (59.8)	112 (28)	30 (7.5)	15 (3.8)	4 (1)	4.42	0.86	Agree
2. Main incomes	220 (55)	103 (25.8)	32 (8)	30 (7.5)	15 (3.8)	4.21	1.11	Agree
3. Reduce debt	196 (49)	155 (38.8)	33 (8.3)	14 (3.5)	2 (0.5)	4.32	0.81	Agree
4. Lifted up well-being	217 (54.3)	141 (35.3)	29 (7.3)	11 (2.8)	2 (0.5)	4.40	0.78	Agree

5.4 Brand royal peacock ($\bar{x}$ =4.49 S.D. = 0.81) 3 important information are 1) Expression of the quality 2) Represents a refinement 3) Manifestation of motivation.

5.5 Stability of income from occupation ($\bar{x}$ =4.34 S.D. = 0.89) 3 important information are 1) Stability of income 2) Enhance the Well-being 3) Reduce the debt (see table 2).

6. Testing hypotheses about the demographic affecting income can be summarized as follows
   6.1 The test has found difference of demographic on age, martial status, education level and the duration of work at the significance level = 0.05. Gender differences do not affect income at the significance level = 0.05.
   6.2 Using statistic LSD testing hypotheses at the significance level = 0.05 the results are
      1) Different age affect revenue, under 20 years of age and 21-30 years of age.
      2) Martial status, single is different from marriage and divorce.
      3) Education level, primary school is different from diploma or bachelor's degree.
      4) 1-5 years of working is different from weavers who works more than 15 years.

Table 3.
Comparison of Monthly Income on Demographic Differences

Monthly income per person	Sex		Age		Status		Education level		Time of work	
	T-stat	sig	F-stat	sig	F-stat	sig	F-stat	sig	F-stat	Sig
	0.69	0.49	8.84*	.000	5.2*	.006	27.17*	.000	3.99*	.008

**At the significance level = 0.05*

7. Testing hypotheses about marketing strategies that affect revenue can be summarized as follows:

The concept of marketing strategy in product, pricing and value creation are different when there is different income at the significance level = 0.05. The allocation of raw materials and distribution has no different even though there is different income at the significance level = 0.05 (see table 4).

Table 4.
the Results of Test in Marketing Strategies Affecting Revenue

Marketing strategies	Monthly income per person		
	F - stat	Sig	Interpretation
Product	2.51*	.041	Different
Pricing	2.83*	.017	Indifferent
Selling	2.07	.884	Indifferent
Allocation of raw materials	1.07	1.49	Indifferent
Adding values	1.82*	.002	Different

**At the significance level = 0.05*

8. Testing hypotheses about attitude that affect revenue can be summarized as follows:

Attitude of the population in the weaving, promoting conservation and livelihood towards the income are different when monthly income is different at the significance level = 0.05. Branded Royal Peacock is indifferent (Table 5).

Table 5.
the Results of Test in Attitude Affecting Revenue

Attitude	Monthly income per person		
	F - stat	Sig	Interpretation
Weaving	1.41*	.013	Different
Conservation	0.64*	.003	Different
Livelihood and well-being	1.35*	.019	Different
Royal peacock symbol	1.74	0.06	Indifferent
Stability	1.77*	.004	Different

**At the significance level = 0.05*

Discussions

Study of factors affecting revenue from silk in people in Amphoe Chonnabot, Konkhaen can be summarized:

Silk is different at the significance level = 0.05 but gender differences don't affect income at the significance level = 0.05.

1. Most of respondents were female, aged around 51-61 years old with marriage and primary education. They are silk weavers for more than 15 years. The benefit of silk weaving is approximately 1001-3000 baht per month.
2. Marketing strategy that affects the benefit the most is product, then allocation of raw materials, pricing selling and adding values in chronological.
3. Attitude that affects the benefit the most is silk weaving, then conservation of Thai wisdom, royal peacock symbol, livelihood and Well-being and stability of income.
4. The result shows that demographic characteristics are affecting income when there are differences in age, martial status, education level and time of weaving.

Concepts of marketing strategies that affect income (product, pricing, adding value) is different at a significant level = 0.05 and allocation of raw materials and selling factors are indifferent at a significant level = 0.05.

Attitude that affects income (conservations, stability) is different; meanwhile attitude about royal peacock symbol is indifferent.

From the summary of the information, researchers have discussed that factor of selling and adding values to silk have an affect to the benefit. Orders from customers are affecting the difficulty of weaving. Silk weavers have to use more skill to define different pattern and designs. Some of weavers add gold braid to gain more value. Another factors is to promote the product in local or national exhibitions to represent the competitive potential and to distribute the product for more orders and benefits.

The attitude of silk weaving, conservation of Thai culture, livelihood and Well-being and stability from silk weaving affect the benefit. All inhabitants have knowledge from their ancestors and become craftsmen since they were little. When the time past, there is a development of pattern and design to be modern but remains a conservative. Products are responded all customers. Wearing silk is uniqueness for community and it became a main income of people.

In demographic characteristics shows that silk weavers graduate from primary school, work more than 15 years. According to Ariya Prapaprom (2000) that silk weavers in Borabue graduated from Pratom 4 and works around 18 years.

Marketing strategies: silk weavers needs more benefits so they create new and difficult design that appropriate the price according to Kotler (1997) (people have been motivated by internal and external stimuli to learn changes and lead to behavior) and appropriate to the quality of products.

Attitude of the population is the most sensitive to promote and conservative of Thai culture. Silk weaving is worthy conservation. Silk weavers recognize the importance of wearing silk.

Factors of gender have no impact to the benefit. Both male and female can be silk weavers because they study from their ancestors.

Suggestions

1. People in Amphoe Chonnabot should promote to create a reliable image of products.
2. Avoiding ready-made silk because product will have a low quality. Ready-made silk isn't beautiful, natural silk is bigger and makes a product better.
3. Avoiding middlemen because they might reduce a price. There should be a center for sell products.
4. There should instill a good attitude to next generation.
5. Emphasize the royal peacock symbol to motivate weavers making good products for customers.

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Expectations and Satisfactions of Tourists Travelling to Cha-Am Petchaburi

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Abstract

The objectives of this research were to study the level of the expectation and the satisfaction of Thai tourists to Cha-Am Petchaburi and to compare the difference between the expectation and the satisfaction of Thai tourists to Cha-Am Petchaburi. The sample was 400 Thai tourists visiting Cha-Am Petchaburi by convenience sampling. The research tool was questionnaire as data analysis in this research were frequency, percentage, mean, standard deviation, and T-test

The results found that the expectation level of Thai tourists visiting Cha-Am Petchaburi in Price was the highest; the next were Place, Products, Physical Evidence, People, Process, and Promotion respectively. While the satisfaction level in Price was the highest; the next were Place, Products, Physical Evidence, Process, People, and Promotion respectively. As for hypothesis testing, it was found that the expectation of Thai tourists to Cha-Am Petchaburi was higher than the satisfaction in all parts at the 0.05 significant levels.

Keywords: Cha-Am, Satisfaction, Expectation

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Introduction

Cha-Am is one of the districts in Petchaburi province. It has been the key economic area of tourism and made much money for Petchaburi. Having almost 200 km. long sand beach of Petchaburi and Prachuap Khiri Khan, Cha-Am attracts a lot of tourists on holidays or some particular occasions. Sustainable tourism development in Cha-Am could help its people to earn more income.

Revisiting is one of the important processes to generate sustainable tourism. In terms of tourism, it is how to satisfy tourists so that they visit again, or that satisfaction leads to word of mouth. Within their satisfaction, there would be some expectation (Chon and Olsen, 1991). In case of the same places or factors, and having their high expectation, if there are something against the tourists' expectation, they won't satisfy. Conversely, if the tourists with a little expectation feel more pleased on their visiting, they would be more satisfied. According to Kotler (2008), marketing mix strategies for service business can cause satisfaction; the strategies included Product, Price, Place, Promotion, People, Physical Evidence, and Process.

Thus, it is a purpose of this research to analyze the expectation and satisfaction of Thai tourists in Cha-Am, Petchaburi.

Purpose of study

This research aimed to study and compare the expectation and satisfaction of the tourists in Cha-Am. The hypothesis of this research was that there were no differences between the level of Cha-Am tourists' expectation and satisfaction.

Methodology

The research methodology included population and sample, research instrument, and method of analysis. The methodology was listed as followed:

3.1 Population and sample

The population was the tourists who visited Cha-Am. Their information didn't rely on any data of the government or non-government section.

There are 384 samples, calculated by using infinite population formula, with a significance level of 0.05. The data were actually collected through 400 samples, in order to avoid the deviation.

The sample derived from convenience sampling. As this research focused on the expectation and satisfaction, the data was collected from the tourists who spent time over their entire program. (Huh, 2002; Pizam, and Millman, 1993)

In terms of the dispersion, the data was collected around 2 pm. – 4 pm. on Saturday and Sunday of September 2013. It took 3 weeks of collecting in 3 places, including Cha-Am beach, Maruekhathaiyawan Palace and Santorini Park Cha-Am. In this research, the tourists traveling in-group was assumed as a person.

3.2 Research instrument

The questionnaire was the instrument of this research. The process of organizing questionnaires included considering literature review and applying theory concerning tourism research, marketing mix strategies and satisfaction. The questionnaires were developed and based on Homsud and Nilsang (2011). The researcher also received some ideas from two experts in tourism and marketing. Those questionnaires were examined and their Cronbach's coefficient alpha equaled 0.911**,** they finally given to 30 samplings.

The questionnaires composed of 3 parts. The first part was general data, including gender, age, residence, salary and education.

The second part included 5 questions concerning the Cha-Am tourists' behavior; have you ever visited Chaam in last three years, how often have you visited, how long have you been searching for information, how have you search for information and who have you traveled with.

The third part was the list for measuring Chaam tourists' expectation and satisfaction; dividing by 7P into 28 lists, based on 1-5 Likert Scale labeled "strongly unexpected/dissatisfied" (1), "a little expected/satisfied" (2), "moderately expected/ satisfied" (3), "very expected/satisfied" (4) and "strongly expected/satisfied" (5).

3.3 Methods of analysis

The analysis covered 3 parts of data – general data, Cha-Am tourists' expectation and satisfaction (for frequency analysis and percentage), and the hypothesis examining on the differences between Cha-Am tourists' expectation and satisfaction. The method of analysis included the analysis of means, the standard deviation and the level of satisfaction. Also, there was the use of t-test to examine the hypothesis, according to Levene's test for equality of variances. All data were finally analyzed finally by Minitab 16 (trial).

Findings

The findings of this research were indicated in 4 parts, including general data, the Cha-Am tourists' behavior, and their expectation and satisfaction defined by the marketing mix strategies, and the hypothesis examining on the differences between Cha-Am tourists' expectation and satisfaction. The findings were listed as followed:

1.1 General Data

Referring to the general data analysis, the respondents were 312 females (78.00%) and 88 males (22.00%).

The proportion of respondents in each age group ranged from the most to least as followed: 214 of age 26 – 35 (53.50%) 107 of age 18 – 25 (26.75%) 43 of age 36 – 45 (10.75%) 27 of age 46 – 60 (6.75%) and 9 of age above 60 (2.25%)

The proportion of respondents' residence in each part of Thailand ranged from the most to least as followed: 174 of Bangkok Metropolitan Region (43.50%) 107 of the Central (27.75%) 77 of the West (19.25%) 15 of the North East (3.75%) 11 of the East (2.75%) 9 of the South (2.25%) and 7 of the North (1.75%)

The proportion of respondents' salary ranged from the most to least as followed: 204 of a salary in the THB 20,000 – 29,999 (51.00%) 148 of a salary in the THB 0 – 19,999 (37.00%) 23 of a salary in the THB 30,000 – 49,999 (5.75%) 18 of a salary in the THB 50,000 – 99,999 (4.50%) and 7 of a salary in the THB 100,000 and above (1.75%)

The proportion of respondents in each education group ranged from the most to least as followed: 236 of graduate (59.00%) 60 of postgraduate (15.00%) 57 of high school (14.25%) and 47 of secondary school (11.75%)

4.2 Cha-Am Tourists' behavior

There were 313 respondents (78.25%) who have visited Cha-Am in last three years and 87 respondents (21.75%) have never been there at that period of time.

The proportion of respondents who visited Cha-Am ranged from the most to least as followed: 163 of 2-3 times visiting (40.75%) 107 of once visiting (26.75%) 87 of non-visiting (21.75%) 32 of 4-5 times visiting (8.00%) and 11 of more than 5 times visiting (2.75%)

The proportion of respondents' preparation before visiting Chaam ranged from the most to least as followed: 194 of 3 - 7 days of preparation (48.50%) 169 of 3 days of preparation (42.25%) 20 of 7 days - 1 month of preparation (5.00%) 14 of 1 - 3 months of preparation (2.75%) and 3 of more than 3 months of preparation (0.75%)

The proportion of respondents and their companion on the visiting of Chaam ranged from the most to least as followed: 158 of visiting with friends (39.50%) 109 of visiting with couples/spouses (27.25%) 83 of visiting with family (20.75%) and 50 of visiting alone (12.50%)

The proportion of how respondents accessed to the information of visiting Chaam ranged from the most to least as followed: 174 of using internet (43.50%) 168 of asking the acquaintance (42.00%) 28 of watching television (7.00%) 16 of reading newspaper (4.00%) and 14 of reading magazine (3.50%)

4.3 Cha-Am tourists' expectation and satisfaction classified by marketing mix

The average level of Chaam tourists' expectation and satisfaction were classified into 7 points, based on marketing mix, as presented in Table 1-7.

4.3.1 Product: The respondents' expectation for product ranged from the most to least as followed (see Table 1): Tasty food, Beautiful places, Enough and chic corner for taking photos, and Worth buying souvenirs

Table 1.
Mean and Standard Deviation of Expectation and Satisfaction in Product

Items	Expectation		Satisfaction	
	Mean	**S.D.**	**Mean**	**S.D.**
Tasty food	4.35	1.04	3.98	0.84
Beautiful places	4.32	1.02	4.04	0.91
Enough and chic corner for taking photos	4.29	0.98	4.06	0.87
Worth buying souvenirs	4.20	1.13	4.05	0.83

4.3.2 Price: The respondents' expectation for price ranged from the most to least as followed (see Table 2): Reasonable price of travel expenses, Reasonable price of food, Reasonable price of souvenirs, and Reasonable price of entire expenses

Table 2.
Mean and Standard Deviation of Expectation and Satisfaction in Price

Items	Expectation		Satisfaction	
	Mean	**S.D.**	**Mean**	**S.D.**
Reasonable price of travel expenses	4.44	1.02	4.13	0.95
Reasonable price of food	4.39	1.06	4.20	0.87
Reasonable price of souvenirs	4.39	1.04	4.10	0.87
Reasonable price of entire expenses	4.37	1.02	4.20	0.86

4.3.3 Place: The respondents' expectation for place ranged from the most to least as followed (see Table 3): Cleanness in tourist attraction, Weather in Cha-Am, Distances from each tourist attraction, and Easy access to tourist attraction

Table 3.
Mean and Standard Deviation of Expectation and Satisfaction in Place

Items	Expectation		Satisfaction	
	Mean	**S.D.**	**Mean**	**S.D.**
Cleanness in tourist attraction	4.36	1.04	4.11	0.90
Weather in Cha-Am	4.35	1.10	4.18	0.99
Distances from each tourist attraction	4.31	1.07	4.08	1.06
Easy access to tourist attraction	4.23	1.17	4.09	0.92

4.3.4 Promotion: The respondents' expectation for promotion ranged from the most to least as followed (see Table 4): Discount for souvenir/gift, Recommendation from one tourist attraction to another one, Beauty of tourist attraction as seen in the advertising, and Revisiting motivation.

Table 4.
Mean and Standard Deviation of Expectation and Satisfaction in Promotion

Items	Expectation		Satisfaction	
	Mean	**S.D.**	**Mean**	**S.D.**
Discount for souvenir/gift	4.03	0.86	3.85	1.09
Recommendation from one tourist attraction to another one	4.02	0.81	3.84	1.09
Beauty of tourist attraction as seen in the advertising	4.01	0.89	3.82	1.17
Revisiting motivation	3.94	0.82	3.75	1.09

4.3.5 Physical Evidence: The respondents' expectation for physical evidence ranged from the most to least as followed (see Table 5): Having enough parking area, - Having enough footpath/bicycle lane, Having enough direction sign, and Having enough toilet with cleanness

Table 5.
Mean and Standard Deviation of Expectation and Satisfaction in Physical Evidence

Items	Expectation		Satisfaction	
	Mean	**S.D.**	**Mean**	**S.D.**
Having enough parking area	4.24	1.10	4.03	0.98
Having enough footpath/bicycle lane	4.22	1.10	3.95	0.96
Having enough direction sign	4.21	1.11	3.98	0.99
Having enough toilet with cleanness	4.14	1.15	4.00	1.06

4.3.6 People: The respondents' expectation for people ranged from the most to least as followed (see Table 6): Good service from staff in tourist attraction, Friendliness of locals, Friendliness of sellers, and Friendliness of officials

Table 6.
Mean and Standard Deviation of Expectation and Satisfaction in People

Items	Expectation		Satisfaction	
	Mean	**S.D.**	**Mean**	**S.D.**
Good service from staff in tourist attraction	4.24	1.10	3.93	0.88
Friendliness of locals	4.18	1.13	3.88	0.87
Friendliness of sellers	4.16	1.14	3.89	0.98
Friendliness of officials	4.09	1.17	3.89	0.91

4.3.7 Process: The respondents' expectation for process ranged from the most to least as followed (see Table 7): Suitable transportation of outer and inner tourist attraction, Fair price of good and service, Suitable management of entire system, and Suitable management of the tourist attraction's system.

Table 7.
Mean and Standard Deviation of Expectation and Satisfaction in Process

Items	Expectation		Satisfaction	
	Mean	**S.D.**	**Mean**	**S.D.**
Suitable transportation of outer and inner tourist attraction	4.15	1.09	3.90	0.93
Fair price of good and service	4.11	1.08	3.94	0.97
Suitable management of entire system	4.11	1.26	3.98	0.95
Suitable management of the tourist attraction's system	4.08	1.12	3.95	1.03

4.4 Hypothesis examining on the expectation and satisfaction

Using t-test to examine the hypothesis on the expectation and satisfaction classified by marketing mix, it could be assumed that the level of tourists' expectation is higher than satisfaction, with a significance level of 0.05 (See Table 8).

Table 8.
Mean of Expectation and Satisfaction, T-test and significant level of Each Marketing Mixes

Marketing Mixed	Avg. of Expectation	Avg. of Satisfaction	t-test	Sig.
Product	4.29	4.03	7.835	0.000
Price	4.40	4.16	6.873	0.000
Place	4.31	4.11	5.061	0.000
Promotion	4.00	3.81	15.469	0.000
Physical Evidence	4.20	3.99	5.756	0.000
People	4.17	3.90	7.627	0.000
Process	4.11	3.94	4.447	0.000

Conclusion and suggestion

According to the analysis of general data, the majority of respondents were females, aged between 26 - 35, and lived in Bangkok Metropolitan Region. Their salary ranged THB 20,000 – 29,999 and they were graduates.

The majority of respondents has visited Cha-Am in the last three years and has been there 2-3 times. They prepared themselves 3 - 7 days in advance, and mostly visited with friends. Also, they mostly used internet to access to the information of visiting.

According to the analysis of marketing mix, the majority of respondents expected Price, Place, Product, Physical Evidence, People, Process and Promotion, respectively. In addition, most of respondents were satisfied with Price, Place, Product, Physical Evidence, Process, People and Promotion, respectively. However, when using t-test to examine the hypothesis on the expectation and satisfaction classified by marketing mix, the research revealed that the level of tourists' expectation is higher than satisfaction.

The research also indicated that the level of tourists' satisfaction is lower than expectation, according to many other researches in the same field. Due to this result, the administrator of tourist attraction has to reconsider the exaggeration of tourism adverting campaigns.

Another point worth considering is the souvenir shops, which become the significant factor for communities to increase their income, leading to sustainable tourism development. As the research showed that the level of tourists' expectation is higher than satisfaction, it could not be concluded that the souvenir shops were not good enough. However, it could be assumed that they were not as good as the tourists had expected. Thus, it was very important to develop their products and channel of distribution. Due to the warm climate all year round, some tourists might not prefer Cha-Am. It would be necessary to promote some other tourist attractions for the evening and night visiting, so the daytime heat wasn't the problem.

This preliminary research is worth interesting as it could be applied to other tourist attractions, for example, Bangsan, Kanjanaburi, Ampawa, etc. The research would also extend the perspectives of tourism, encouraging the study on success factor for revisiting and tourists' satisfaction.

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Medication Use amongst Diabetic and Hypertensive Elderly in Muang District, Suphanburi Province

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Abstract

It has been estimated that within five decades, the proportion of the world population aged over 60 years old will be more than half. Within 2050, there will be one elderly every three people of which a quarter of the population in developed countries will be aged 65 and 20% in developing countries are expected to be over 60 years old. While the proportion of the elderly increases, noncommunicable diseases and drug use are one of indispensable concerns in health aspects. This study aimed at exploring the pattern of medication utilisation among the elderly with diabetes and hypertension in Suphanburi Province. In addition, recommendations from stakeholders of medication utilisation were accrued for creating further pattern of care.

The mixed methods used in the study is the questionnaire with 120 ramdomly sampling participants for quanitative data and the semi-structured interview with 20 stakeholders for qualitative information. Data analysis was interpreted as descriptive statistics and content analysis for qunatitative and qualitative data, respectively. Findings reported that more than 60% of participants experienced polypharmacy problems (use of too many drugs more than they really needed), more than 54% came across with other healthcare seeking behaviour (such as herbal medicines or local wisdom) and 45% abandoned medication use. Qualitative data revealed that healthcare professionals (doctors, nurses and pharmacists) played an important role in medication utilisation among the elderly. Symphathetic maners and considerative services were key to satisfaction and adherance to diabetic and hypertensive medication utilisation. Proactive services such as home healthcare or mobile counselling in communities were also important to fulfil the elderly's needs.

Recommendation from this study was that the provision of medication services should integrate personal relations into healthcare services. Furthermore, the checked and balanced system between doctors and pharmacists must be introduced to the pharmacy service for the decrement of polypharmacy. Problems in abandonment of diabetic and hypertensive medication utilisation could be avoided if interpersonal relationship between healthcare professional and the elderly are of concerns. Further study could be explore more in how to create such a sustainable bond between a healthcare provider and patients for the ultimate medication utilisation.

Keywords: medication utilisation, the elderly, diabetic and hypertensive elderly

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Introduction

It has been estimated that within five decades, the proportion of the world population aged over 60 years old will be more than half. Within 2050, there will be one elderly every three people of which a quarter of the population in developed countries will be aged 65 and 20% in developing countries are expected to be over 60 years old. While the proportion of the elderly increases, noncommunicable diseases and medication utilisation are one of the most indispensable concerns in health aspects. Medication is the single most important treatment option for most diseases and the use of therapeutic drugs is increasing, both nationally globally. In the elderly, the high morbidity often justifies a high prescription rate (Spinwine et al 2007; SBU 2009). It is not uncommon that people over 80 are treated with more than 10 medications simultaneously (Fastbom 2005; Fulton & Allen 2005; Hovstadius et al 2010; Peron et al 2011). Studies have shown that drug therapy in the old people is not always optimal, and sometimes may be inappropriate (Gallagher et al. 2007; Socialstyrelsen 2009).

The risk of adverse drug reactions and interactions between drugs increases significantly with polypharmacy, defined as the concomitant use of five or more medications (Banerjee et al. 2011). Significant differences in the occurrence of medication-related problems have been demonstrated due to gender and education levels (Haider et al. 2009; Hovstadius et al. 2009; Johnell et al. 2009). Drug-related problems (DRP), including adverse reactions or drug interactions among old people which made up about 20-30% of the total number of hospital admissions in Sweden and some countries, leading to unnecessary suffering for the patient and increased medical expenses (Rottenkolber et al. 2011). A large proportion of these admissions are related to incorrect dosing, inappropriate drug choice or inappropriate drug combinations among all main causes. This could be prevented by giving "the right medicine" to "the right patient" at "the right dose" in "the right combinations" and at "the right time" that is absolutely challenging for health professionals.

Objective

1. To explore the pattern of medication utilisation among the elderly with diabetes and hypertension in Suphanburi Province
2. To obtain recommendations from stakeholders about the medication utilisation

Methods

Quantitative Method

The questionnaire was applied to 120 ramdomly sampling participants for quantitative data. All paticipants were selected from medical records from the provinical hospital in Muang District, Suphanburi Province. All data was analysed using statistical programme.

Qualitative Method

The semi-structured interview was employed as a tool for data collection with 20 stakeholders who played an important role with patients medication use. Stakeholders comprised doctors, pharmacists and nurses. Qualitative data was analysed using the thematic analysis method.

Findings

Results reported that more than 60% of participants experienced polypharmacy problems (use of too many drugs more than they really needed). The most common drugs found in the prescriptions were antibiotics, Non-steroidal Anti-inflammatory Drugs or NSAIDs, and drugs used as muscle relaxants. More than 54% came across with other healthcare seeking behaviour such as herbal medicines or local wisdom, 45% abandoned medication use. Qualitative data revealed that healthcare professionals (doctors, nurses and pharmacists) played an important role in medication utilisation among the elderly. Like one participant mentioned:

"*....I would prefer to ask the doctor about drugs rather than buying from the drugstores.*" (Participant 11)

While anther participant told that :

"….I have never visited other clinics or drugstores because I believe that the hospital can ensure me about medication and professionals who serve my needs and cure my diseases." (Participant 17)

Sympathetic manners and considerative services were key to satisfaction and adherence to diabetic and hypertensive medication utilisation. Most participants emphasised that they prioritised these issues as friendly atmospheres.

"…I would prefer the one who prescribes medication with smile and provides me lots of advice of how to use drugs." (Participant 3)

"…. In front of the pharmacy department, I saw a pharmacist demonstrating how to use an asthma spray to an old lady. I was impressed with that picture and want a hospital to be like home for every one (particularly the elderly). (Participant 5)

Proactive services such as home healthcare or mobile counseling in communities were also important to fulfill the elderly's needs.

"…. My wife is partially paralysed and she has to stay in bed 24 hours. There is a team from the hospital visiting her and try to rehab my wife with drugs and valuable advice. I want this team to visit all patients like my wife. It is really excellent services!" (Participant 20)

Recommendation

This study proposes recommendation that the provision of medication services should integrate personal relations into healthcare services such as time spent with patients in medication consultation or friendly atmospheres while receiving drugs. Furthermore, the checked and balanced system between doctors and pharmacists must be introduced to the pharmacy service for the decrement of polypharmacy. Problems in abandonment of diabetic and hypertensive medication utilisation could be avoided if interpersonal relationship between healthcare professional and the elderly are of concerns. Further study could be explored more in how to create such a sustainable bond between a healthcare provider and patients for the ultimate medication utilisation.

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Expected Roles and Activities of in School Hygiene Under Participation among School, Parents, Health Promotion Hospitals and Local Governments in Banpong District, Ratchaburi, Thailand

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Abstract

A good practice of participation in school hygiene management is important. Therefore, the expected roles, activities and present roles and activities should be examined. This study aims to examine four main aspects: 1) present and expected roles of school, parents, health promotion school and local governments 2) factors relating to the school hygiene 3) expected school hygiene activities and 4) challenges in the school hygiene care.

Research method:
Design: an exploratory qualitative descriptive research
Participants: the potential participants who meet the criteria such as taking part in the participation of school hygiene care (for example the executives team of schools, school hygiene teachers , parents, school health volunteers, health care providers in community and local government officers) were recruited if they are agree to take part in this study.
Data collection: focus groups were used in this study.
Data analysis: Descriptive statistics and content analysis were used to analyze data.
Findings: There were four main aspects of findings. First, the expected roles of all groups participating in school hygiene care are higher than the present roles. Therefore, the needs or required school hygiene activities may not be served or managed. Second, all groups who manage about the school hygiene did not have much knowledge and overall functions in relating to school hygiene care in schools. During the focus group, all groups of participants cannot specify their completed roles and activities and they can get overall roles and expectations from each people's opinions. Third, adding some groups to this participation may help fulfill these works. For example, all teachers, all students, communities, temple and primary school in the area of Banpong should be. Fourth, challenges of the school hygiene care can be categorized into ... folds. The first fold is a lack of budget, knowledge, closed participation and evaluation. The second fold related to overload of works for school hygiene teachers, so they cannot complete their own school hygiene job as the expectation. However, all participants suggested three significant solutions. The first solution was the regular meeting about roles and expectation of each groups. The second solution is recruiting all teachers and parents. The third solution is researching or using results from researching to improve the quality of school hygiene care in the future.

Keywords: Participation, school hygiene care

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Background

A good practice of participation in school hygiene management is important for children who spend most of their time in their schools because it will enhance healthy students, therefore, healthy students will enhance students to be ready for improving themselves to reach their academic competences in the future (Department of General Education, 1999,World Health Organisation, 1988).

Referring the school children report in 2012 by the Bureau of Health Promotion Ministry of Public Health, the most common health problems of the school children were obesity (6.4 and 5.7%) and nutritional deficiency (4.2%). Additionally, abnormal sight and hearing were also reported (4.3% and 3.1% respectively). Furthermore, personal hygiene such as lice infection was also reported (11.1%). Interestingly, the survey results from Banpong Ratchauri were also found that personal hygiene is the highest common problem (30.56%), whereas, obesity and nutritional deficiency were 1.68% and 2.34 %, respectively (Banpong District health system committee Ratchaburi province, 2002).

All these results also showed the common health problem of school children and they may affect the health status of children who will grow and is the human resources of next generation. Therefore, the school hygiene should be emphasized. Additionally, the health promoting school concept is also introduced and applied as the strategies to enhance health status of students with cooperation from all sectors involvement such as children, school, family, especially community and local governments need to be involved as the budget subsidy to the schools based on the decentralized concept in Thailand (Department of Local Administration, 2003).

Currently, based on results about the school health promotion levels in Banpong district, there is no health promoting school at the excellent level (Banpong district public health office, 2002) because of inappropriate budget from local governments in supporting school to manage about the hygiene school. The researchers aware of the participation among all sectors involving the school hygiene. However, there is a lack of previous study to advise about roles and expected roles of each sectors involved in the hygiene school . Therefore, the researchers are interested in the roles and expected roles of all sectors involving as the partnership in the hygiene school improvement. For example, the expected roles, activities and present roles and activities in school hygiene or school based health promotion should be clearly identified. All sectors are school, family, health care providers and primary health center, communities and local governments. Results from this study will be used to guide the school hygiene or health promotion school improvement model, which requires all sector participation in the future.

Purposes of the study

This study aims to examine four main aspects: 1) present and expected roles of school, parents, health promotion school and local governments 2) factors relating to the school hygiene 3) expected school hygiene activities and 4) challenges in the school hygiene care.

Research method

Research Design

An exploratory qualitative descriptive research was used in this study.

Participants

The researchers selected the primary school in four sub-districts in Banpong district Ratchaburi province, Thailand using purposive sampling. The inclusion criteria were two remote sub-districts, other two were the semi remote sub-districts in Banpong district Ratchaburi province, Thailand.

Then the potential participants who meet the criteria such as taking part in the participation of school hygiene care, As described below, were recruited if they are agree to take part in this study:

1. One executive of the school.
2. One School hygiene teacher.
3. Two health volunteers of the school.
4. Six parents from each school.

5. Two health care providers and
6. Two local government officers.

Therefore, 14 people from each sub-districts were recruited.

Instrumental tools

There are two main instrumental tools of this study.

First, personal characteristics questionnaires include questions about gender, age, educational level, position, practical years. There were two main different questionnaires: for health care providers and local governments.

Second, semi-structure interview guide which is specific for: 1) the executives, school hygiene teachers and health volunteers of the school, 2) parents, 3) health care providers and 4) local government officers were used in the focus groups. The content of this interview guides includes of perception of participants on school hygiene care, barriers of school hygiene care, roles and expected roles of the schools, parents, primary health care center and local governments. All semi-structured interview guides were tested for the content validity by two experts, specializing on community health or school hygiene care then the researcher adjusted and refined the interview guides based on the expert's suggestion before using in the study.

Ethical consideration

The researchers collected the data using ethical consideration in terms of agreeing freely, privacy, results will be reported as a whole and used participants' data for only the benefits on academic and research.

Data collection: there were three main steps for the data collection:

1. After an approval from the ethics committee of Boromarajonani College of Nursing, Chakriraj were obtained, the researcher asked for permission to collect the data from the directors of the school and made appointment for the focus groups.
2. The researchers gave personal characteristic questionnaires to the participants who agreed freely to take part in this study. Participants answered the questionnaires then started the focus group.
3. The researchers ran seven focus groups: 1 group of participants from the school, 4 groups of parents, 1 group of health care providers and 1 group of local government officers for prevent bias and barriers in traveling cost.
4. The researcher recorded the communication during focus group.

Data analysis

There were two types of analysis:

1. Descriptive statistics such as frequency, percentage average scores and
2. Content analysis were used to analyze data as follow:
    a. Verbatim transcribed data from the communication in the focus groups.
    b. Listened to focus groups from tape and read scripts for many times.
    c. Coded the important information from scripts and looked for the important codes which were seen very often.

Results and discussions

There were two main aspects of results.

First, the characteristics of participants divided into each groups and found that most participants were female, except the executives of the school and local government officers. Most participants especially the executive team, teachers, local government officers and health care providers were graduated at least the bachelor's degree. However, only health volunteers and parents finished the at least primary school level.

Second, findings from the focus group were divided into five groups:

The first findings about the actual roles of the school hygiene care were reported that all schools sat up the school hygiene care, in particular, school hygiene teachers play a major roles in terms of planning, facilitating with other organization, assessing health and developmental assessment for students, providing the first aid care, providing health education about self care and nutrition for student and their parents. Additionally, parents usually provide care about the students' health in terms of seeking for nutrient food, giving participation for some activities. Furthermore, health care providers gave check up assessment annually in terms of vaccination, health education, treatment, sanitary care for food and water, evaluation of health promotion schools, facilitating with all sectors. Lastly, local government subsidized budget relating to lunch and food for students, health promotion campaign and special day of schools.

The actual roles of teachers and parents were congruent with the reviewed literature on the school hygiene care (Sirisawang, 2007) except the socioeconomic supports which may affect to the students health status and accidental prevention and vaccination. Similarly, the actual roles of health care providers also congruent with the reviewed literature of Rutja Poopaiboon et al. (2006), but the academic development, health promotion campaign and following up the information about health should be fulfilled. Incompleted actual roles of each sector may due to a lack of knowledge or work overload of teachers and health care providers, which may congruent with studies of Chutsuda Chinprasartsak (2003) and Chitkaroon Watrachan (2005).

Second findings regards the expected roles of all sectors for school hygiene care, the findings confirmed that the expected roles of all groups participating in school hygiene care are higher than the actual roles. For example, the expected role of the executive were mentioned in terms of the policy and administration as a few participants advised that "the directors should support activities in the better way such as aware of health promotion for students and recruit appropriate teachers to work in the school hygiene care". Parents and teachers should expand their roles as well. For the health care providers, the participants agreed that health care providers should provide care in terms of health assessment twice a year. Therefore, the needs or required school hygiene activities may not be served or managed for all aspects.

Third findings regard the perception and knowledge about school hygiene care. The result showed that all groups who manage about the school hygiene did not have much knowledge and overall functions in relating to school hygiene care in schools. During the focus group, all groups of participants cannot specify their completed roles and activities and they can get overall roles and expectations from each people's opinions. These finding may consistent with the studies of Chutsuda Chinprasartsak (2003) and Chitkaroon Watrachan (2005). Additionally, parents and local government officers may have a lack of knowledge about school hygiene care, which may relate to a lack of meeting on school hygiene care. These findings are congruent with Anupong Punwanit's study (2005) that mentioned about a lack of participation during the planning and working on health promotion campaign.

The fourth findings regard adding some groups to this participation. It may fulfill these works. For example, all teachers, all students, communities, temple and primary school in the area of Banpong should be involved.

The fifth findings, challenges of the school hygiene care can be categorized into two folds. The first fold is a lack of budget, knowledge, closed participation and evaluation. The second fold related to overload of works for school hygiene teachers, so they cannot complete their own school hygiene job as the expectation. The budget issues is also congruent with study of Prachon Awutpetch (2006) that reported about the barriers of health promotion campaign are a lack of budget, monitoring, knowledge, guideline and time.

Implementation and recommendations

For practitioner, all participants suggested three significant solutions. The first solution was the regular meeting about roles and expectation of each group. The second solution is recruiting all teachers and parents. The third solution is researching or using results from researching to improve the quality of school hygiene care in the future.

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Behaviors and Factors Affecting Purchasing Decisions on Healthy Products and Services of Elderly Consumers in Suphanburi province, Thailand

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Abstract

Thailand is becoming a society of elderly people. Advancement in medical and public health technology and an increased tendency towards health care of Thai population have resulted in an increased demand for health products and services and behavior of health product and service consumption. This research had two main objectives: to study elderly consumers' behavior of purchasing health products and services and to analyze factors that affected the decisions on purchasing the products and services. The samples were 400 elderly people in Suphanburi province, Thailand. The tool used in this research was questionnaires, and statistics used included descriptive statistics and factor analysis.

The results showed that: 1) Most of the respondents were females with an age ranging from 60 to 65 years old; had primary education; were self-employed/sellers; earned money mainly from extra jobs/sales; and earned 0-3,000 baht per month. 2) The majority of the respondents had the behavior of purchasing health products and services; regularly purchased healthy food and had medical check-ups because they thought these are necessary to their health; made decisions on purchasing health products and services by themselves; purchased them from the market because it was convenient for them and it had all what they wanted; purchased them 1-2 times per month on average; paid less than 500 baht per time for them; and purchased the same brands. 3) There were six factors that affected their decisions on purchasing health products and services: quality and safety, finance, convenience, receiving and communicating relevant information, sales assistants, and social factors at the level 0.05 significance.

Keywords: Consumer behavior, Factor Analysis

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Introduction

Economic changes, technology and society, including medical advances. As a result, the population age longevity. The United Nations estimates that the year 2001-2100 will be the century of the elderly. Refers to the population aged 60 years and more than 10 percent of the population worldwide. NSO specify that Thailand is a country which is aging society since 2005, while the country has 10.4 percent of the elderly population. The Office of the National Economic and Social Development has forecasted population structure is changing through Thailand's aging society. Thailand will have a one in four elderly population and the aging society controlled during the year 2008-2028.The proportion of the population aged 60 and over will increase from 11.1 percent to 23.5 percent, or one in four of the country's population. (National research strategy and policy issue 8, 2012-2016: the elderly community).

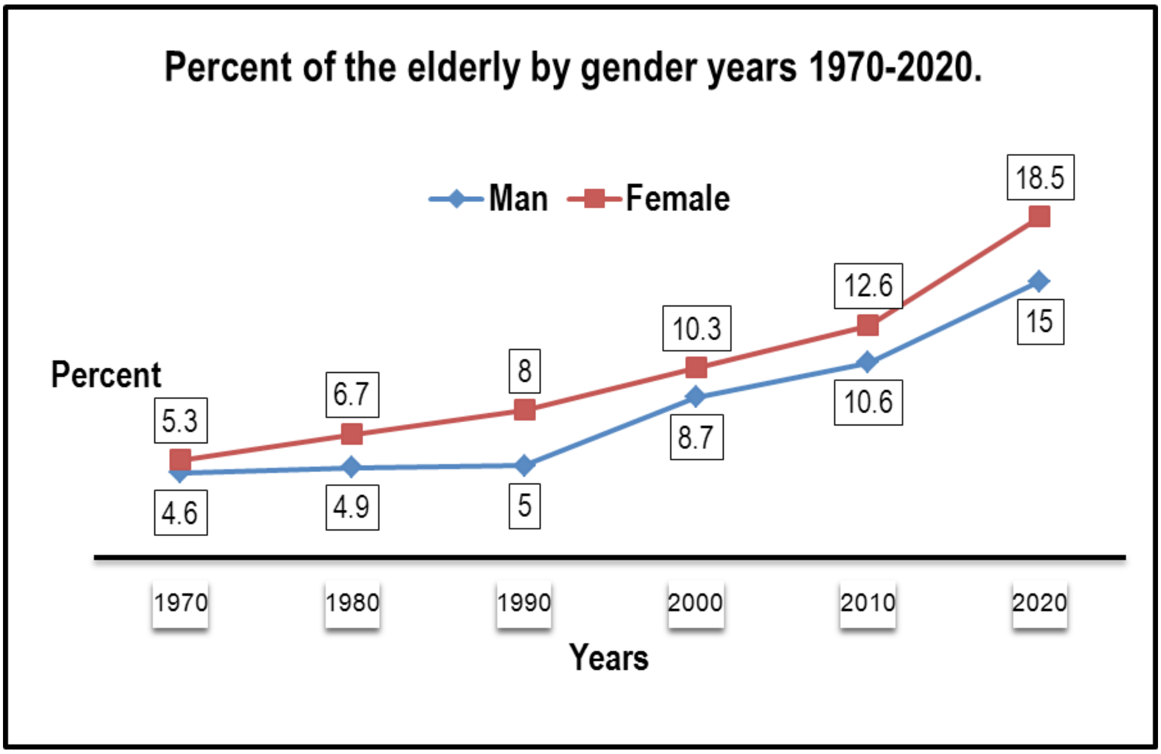


Figure 1. Percent of the elderly by gender years 1970-2020.

From the chart, elderly women, the proportion increased from 5.3 percent in 1970 to 10.3 percent in 2000, the elderly man up from 4.6 percent in 1970 to 8.7 percent in 2000 and expected to be elderly women high as 18.5 percent and 15.0 percent of elderly men in 2020 (Office for National Statistics, 2011).

These statistics reflect an increase in the number of elderly people say, indeed. Business and marketing, most of you have noticed this tendency increased and became interested in business and marketing with a group of older people than the business initially focused attention. Teenagers or young consumers are more than consumers aged 60 years and above.

Understanding consumer behavior is essential for the development of business strategy and marketing. And age, is a factor that is highly correlated with the physical and mental state. Including the role of social and family, is extremely important to consumer behavior. Characteristics of older consumers are different from other consumer groups, as older consumers did not work. Or in the retirement age has been reduced. And some people do not have savings. Although some may have to do some work after retirement but these are temporary. Business and marketing in various countries began to focus on older consumers increase.

Research has turned up in many countries to study and understand the behavior of older consumers such as China, which has a number of elderly, has increased since 1999, Chinese businessmen have noticed this trend and began to focus on elders market more. The researcher believes that the old model of consumer behavior in China has changed. Therefore, it is necessary to study the up-to-date behavior patterns. The study found that older consumers have similar consumption behaviors when they were teenagers or youth work. And the factors affecting the purchase decision are related to the attitudes of consumers. Including senior roles within the family about purchasing lower (Ying & Yoa, 2006).

According to Liu, 2001; Yan, 1997 and Yuan, 1997, a studied the patterns and purchasing behavior of the elderly in China found that most elders have a habit of repeating to purchase the same goods and services, the selection of the original brand, and sensitive to the price of the products. Older consumers tend to look for any high quality products and desire to have them at low prices. In addition, elders would prefer to purchase luxury, and beautiful products comfortably due to their capability (Yuan, 1997b). They do not prefer to walk around in busy markets because of too crowded (Ying &Yoa, 2006).

Thailand's research on consumer behavior and the factors that affect the purchase decision of the elderly do not much like the past research has found a relationship between the lifestyle of Thailand's purchasing behavior about beauty products significantly. The model is composed of three factors that are correlated with the factors. Factors are youthfulness, product safety, and personality factors. (Anil &Sirion& Howard, 2008).

(Hare, 2550) to study the satisfaction level of consumers aged 60 and over in Scotland. About buying food in supermarkets, the researchers found that the shop that affects satisfaction levels at most two areas: 1) variables, the salespeople are skilled workers 2) variables practices work is to provide a sanitary and complaints. The satisfaction levels of satisfaction are two key areas: 1) the quality and diversity trade and 2) the atmosphere and the decor and amenities inside.

(Moye and Giddings, 2550) studied the factors affecting the mall to buy clothes for the elderly 65 years and above in the southeast of the United States. Influencing factors include the size shopping stores. Model presentation of brightness and temperature, and factors of goods brand the reputation of the shop. It can be concluded that the price factor model brightness temperature of the product brand and the reputation of the shop. Affect the purchase of the elderly.

This research study focuses on consumer behavior and health of the elderly in Suphanburi province, Thailand will look like. Also find out what factors contributed to the decision to purchase goods and services seniors health. To be beneficial to the basis for business planning and marketing associated with the elderly in Thailand.

Theory

The study investigated the consumers' behaviors and satisfaction. Make Business and marketing to meet consumer satisfaction. The more the needs of consumers are served, the more satisficed they are.

1. Consumer Behavior

There have been defined the meaning of consumer behavior by many researchers and scholars. This research refers to the definition of consumer behavior from those defined below.

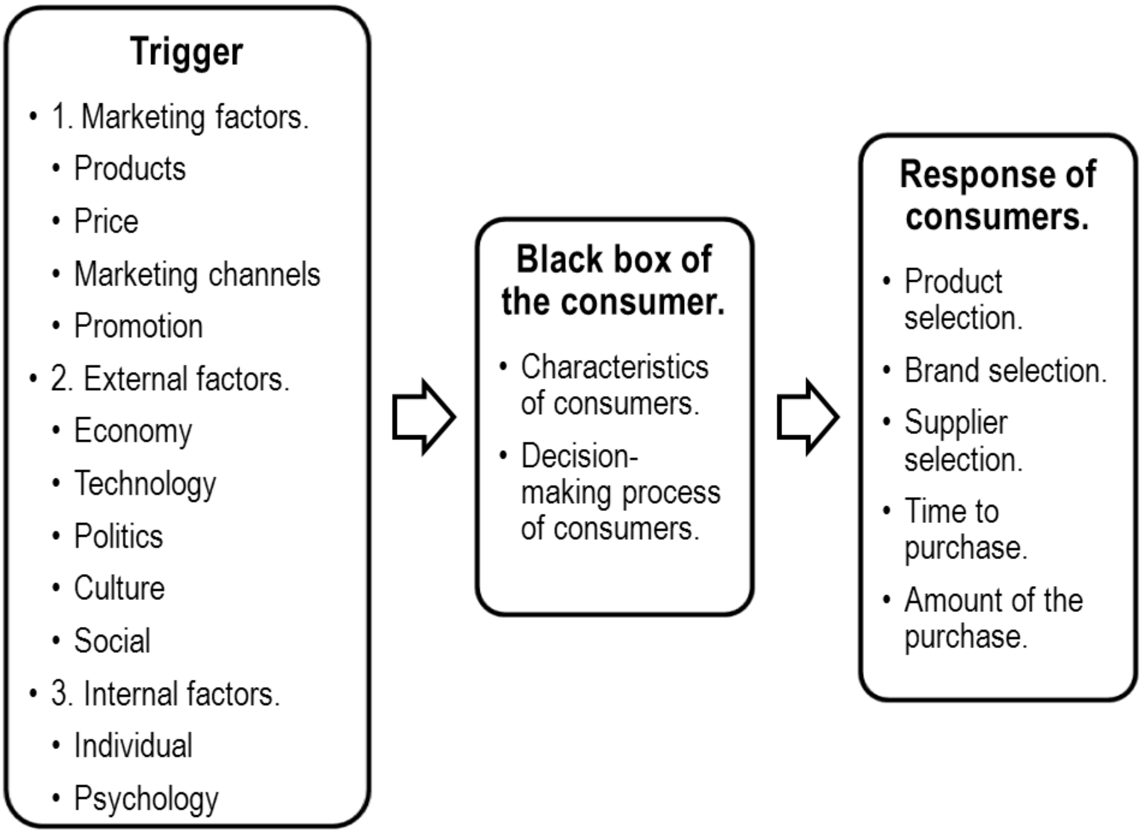
Engel &Kollat& Blackwell, 1968, identified that the action of individual consumer behavior is directly related to the supply and use of goods and services. Including the existing decision-making process and contributed to the emergence of such action.

Schiffman&Kanuk, 1987, identified that consumer behavior is that consumers seek to express themselves, whether it is used or the consumer evaluation of products, services and concepts for which consumers will be able to meet their needs. Including the decision of consumers to use existing resources, both time and money to consume goods and services, which include what, why, how, where and when to buy, how often.

According to the researches in relation to consumer behavior , the behavior ofthe searching purchasing using evaluating and disposing in products and service Expected to meet his needs.

2. Factors affecting towards purchasing Behavior

Kotler (1997) suggested thatbeginning to understand consumer behavior is a form of response to stimuli that move into the consumer's state of mind will lead to a buying decision. This can be explained by using the model of consumer behavior.



Of visual stimuli presented to the market price, the market consists of products,Marketing and promotion, External stimuli include economic, technological, political, cultural and social and internal stimuli in a personal and psychological.All of these are factors led into the black box of the consumer.This pointed out that theconsumer's decision to purchase anything, which brands they select to buy as well as its quantity.

Consumption of economic activity is the last activity is an important activity that is causing the economy to meet the needs of the economy, the household sector, government and the private sector, because every unit needs to satisfy consumer to meet their needs.

Methology

1. Data

Data for this research is a group of seniors in the Suphanburi province, Thailand. The research used sampling Method (Convenience Sampling) which can be divided into three major parts;

Part 1: Personal Information (7 items)

Part 2: Information on purchasing behavior and health of the elderly in Suphanburi (Check List) 9 items

. Part 3:Information about the factors that affect the decision to purchase Health productsand services of the elderly in Suphanburi . The researchers collected data from 21variables above research respondents to rate the importance of each item. The rating of the importance of the minimum score, the most important by way of light yogurt (Likert Scale) is divided into five levels: minimal = 1, low = 2, moderate = 3, high = 4 and most = 5

2. Method

The methodsfor data analysis of this study consisted of descriptive statistics (Descriptive Statistics) and factor analysis (Factor Analysis) as follow.

3.2.1Descriptive statistics (Descriptive Statistics) a statistic used to describe the characteristics of the study included frequency,percentage, mean and standard deviation. For Part 1: includedInformation. And Part 2: soughton purchasing behavior and health of the elderly in Suphanburi Thailand

3.2.2 Analysis (Factor Analysis) is a statistical method for decreasing the number variables that affect the purchase of goods and services, the health of the elderly. In Suphanburi, Thailand from the integration of several variables that are related to the group or the same factors. Factors that caused new variable effects, followed three steps;

3.2.2.1 Check whether variables are related or not, that is, if the variables are relationship or related to a significant level. It can be used to analyze the elements if a variable has no relationship or a relationship.Less should not be used as such. This research examined the relationship with statistics KMO and Bartlett's test of sphericity.

3.2.2.2Extraction factor (Factor Extraction) is to find a number of factors that can be used to represent all of the possible variables. Or be pulled into the details of variable factors. Extraction is the most popular method and Principal Component Analysis or PCA method was used for this research. Of the extracted factors using Principal Component Analysis or PCA can estimate the Factor Loading. This value was used to determine the variables which could be of the same factors the Factor Loading of variables is large (convergence. to +1or -1)variables should be in such factors

3.2.2.3 The rotation factor (Factor Rotation) Factor Loading of the variables is made more or less valuable. Be used for the Factor Loading valuable intermediate variables that cannot classified in any of the factors. The most popular method. Perpendicular to the rotation axis of the factors or independent parties (Orthogonal Rotation) by the Varimax method, a technique that has a minimal number of variables in the Factor Loading of each factor.

3.2.2.4Factor Score is calculated after the procedure can have many variables. Just a few variables can calculated the value of a new variant of Factor Score to further analysis.

Results

1. Demographic characteristics of the sample group.

Table 1.
Below presentsthe percentage and frequency by usingdemographic characteristics.

Demographic characteristics	Number 400	Percentage 100.0
Sex		
Man	162	40.5
Female	238	59.5
Age		
60-65 years.	162	40.5
66 - 70 years.	98	24.5
71 - 75 years.	76	19.0
76 - 80 years.	26	6.5
80 years or more.	38	9.5
Education		
Uneducated	38	9.5
Primary 1 - Primary 6	242	60.5
M 1 - 6	76	19.0
Bachelor	33	8.3
Postgrad	11	2.8
Family status		
Single	48	12.0
Married / living together	237	59.3
Divorced / Widowed / Separated	115	28.8
Main occupation before age 60 years		
Farmers	101	25.3
Contract	79	19.8
Government / state employees	75	18.8
Private companies	17	4.3
Private business / trade	128	32.0
At present, the average monthly income levels		
0 to 3,000 baht / month	136	34.0
3,001 to 6,000 baht / month	96	24.0
6,001 to 10,000 baht / month	73	18.3
More than 10,000 baht / month	95	23.8
Source of income at present		
Allowance from the government	66	16.5
Family members	102	25.5
To earn extra money / trade	150	37.5
Pension	47	11.8
Private savings	35	8.8

The table 1 - Identifies thatMost of the respondents were females with an age ranging from 60 to 65 years old; had primary education; were self-employed/sellers; earned money mainly from extra jobs/sales; and earned 0-3,000 baht per month.

2. Purchasing behavior, and health services.

Table 2.
Below presentsthe percentage of respondents by purchasing behavior, and health services.

Purchasing behavior, and health services	Frequency	Percent
Buy healthy food.	254	63.5
Medical check-ups.	237	59.3
It is necessary for the body.	323	80.8
Purchase products and services on their own.	231	57.8
Purchase products and services from the market.	131	32.8
Ease of travel. And product needs.	118 and106	29.5 and26.5
Purchase products and services on average 1-2 times per month.	303	75.8
It costs less than 500 Baht a time.	233	58.3
Products and services in the same brand.	355	88.8

The table 2 Identifies thatThe majority of the respondents of the behavior of purchasing health products and services regularly purchased healthy food and had medical check-ups because they thought these necessary to their healths; which helped them makedecisions on purchasing health products and services by themselves; purchased them from the market because it was convenient for them and it had all what they wanted; purchased them 1-2 times per month on average; paid less than 500 baht per time for them; and purchased the same brands.

3. Analysis of factors affecting purchasing and health services.

Table 3.
Below presents Statistics KMO and Bartlett's Test determine the suitability of the information for analysis.

Find the right data analysis technique KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.801
Bartlett's Test of Sphericity	Approx. Chi-Square	4177.232
	df	210
	Sig.	.000

The level of significance is 0.05.

The table 3, Identifies thatStatistics KMO = 0.801 which is greater than 0.5, convergence to one and the Sig. = 0.000 (Sig. = 0.000 < 0.05)Information that is appropriate to use technical analysis with significance level 0.05.

Table 4.
Below presentsthe value Total Variance Explained for analysis.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.707	27.178	27.178	5.707	27.178	27.178	4.259	20.283	20.283
2	3.135	14.927	42.105	3.135	14.927	42.105	2.611	12.433	32.717
3	2.076	9.888	51.993	2.076	9.888	51.993	2.596	12.360	45.077
4	1.283	6.110	58.103	1.283	6.110	58.103	1.913	9.110	54.187
5	1.201	5.720	63.823	1.201	5.720	63.823	1.689	8.044	62.231
6	1.084	5.163	68.986	1.084	5.163	68.986	1.419	6.755	68.986

Extraction Method: Principal Component Analysis.

The table 4 Analyzed the various statistics after the extraction factor found to be a factor, only six factors (from 21 factors).Eigenvalues greater than 1, by considering only the six factors, this factor could explain the variability of the data was 68.99%, which is considered a good level.

Table 5.
Below presentsthe Factor Loading of factors by each variable.

List	Component					
	1	2	3	4	5	6
The most common types of advertising.	.820	-.208				
Advertising through public media such as TV or newspapers.	.808					
With the promotion of the product.	.770					
Are familiar with the brand of the product.	.713				.321	
Note that after-sales service.	.636		.390		.204	
Information is sent to the customer on a regular basis.	.605		.332			
Products and services are safe.		.803				
Products and services reliability.		.773				
Products warranty and services marks.	.232	.741	-.201		-.233	
Useful products and services and meet demand.		.640				
Experienced staff.	.331		.785			.221
Have been purchased directly from the vendor.			.737			
A salesperson will give knowledge coupled with the sale of products.	.468		.710			
Products and services have a good image.	.438	.214	.496		.271	
It is convenient and easy to buy products and services.				.917		
Easy to travel.				.916		
Groups such as children or a close friend recommended.					.739	
Family has regularly used it.	.392				.721	
Yourself have the demand. Or been previously accepted from other persons.	-.297	.372	.317	.295	.425	
Products and services are cheaper than other brands.			.289			.814
Products and services are not much different to other brands.	.444					.759

The table 5 explainedthe meaning of each of these factors as significant variables in whicheach factor. The factors that affect the decision to purchase products and services, the health of the elderly in Suphanburi, Thailand has concluded that all six factors the two image sequences.

Variables	Factors
The most common types of advertising. Advertising through public media such as TV or newspapers. With the promotion of the product. Are familiar with the brand of the product. Note that after-sales service. Information is sent to the customer on a regular basis.	Factor 1 receiving and communicating relevant information
Products and services are safe. Products and services reliability. Products warranty and services marks. Useful products and services and meet demand.	Factor 2 quality and safety
Experienced staff. Have been purchased directly from the vendor. A salesperson will give knowledge coupled with the sale of products. Products and services have a good image.	Factor 3 sales assistants
It is convenient and easy to buy products and services. Easy to travel.	Factor 4 convenience
Groups such as children or a close friend recommended. Family has regularly used it. Yourself have the demand. Or been previously accepted from other persons.	Factor 5 social factors
Products and services are cheaper than other brands. Products and services are not much different to other brands.	Factor 6 finance

Conclusion

1. Most of the respondents were Elderly consumers in Suphanburi province, Thailand. They were females with an age ranging from 60 to 65 years old; had primary education; were self-employed/ sellers; earned money mainly from extra jobs/sales; and earned 0-3,000 baht per month.

2. The majority had the behavior of purchasing health products and services; regularly purchased healthy food and had medical check-ups because they thought these were necessary for their health, thus these factors helped them makedecisions on purchasing health products and services by themselves; by purchasing productsfrom the market because it was convenient forThey purchased several times a month on average. paid less than 500 baht per time for them; and purchased the same brands.

3. There were six factors that affected their decisions on purchasing health products and services of elderly consumers in Suphanburi province, Thailand. : Quality and safety, finance, convenience, receiving and communicating relevant information, sales assistants, and social factors.

Discussion

Reducing the number of variables by multiple variables in the same factor was considered to create a new variablethat affects the purchase of goods and services among the elderly in Suphanbu ri. Thailand. This can lead to such factors as variables for Regression and further correlation analysis.

The statistics in the increasing of aging population worldwide were not only usedin Thailand. An indication, the market of the old world and Thailand is growing more and more.Therefore, the consumption patterns of these groups may vary according to the style of life of the people in each country. The further study could be more education about the older group that actually can be divided in many groups by the Cluster Analysis based on information in business and marketing.

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Public Opinion on HIV/AIDS: Does Media Make a Difference?

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Abstract

Media remains a powerful tool in disseminating information to the general public. There is strong evidence that media influences public opinion formation on particular issues through the way they represent and report. While it took several years for the media to begin reporting on and framing HIV/AIDS since 1986, the public has somewhat been provided a certain level of awareness about the disease per se. This paper examines the effectiveness of media in public opinion formation on the HIV/AIDS issue among the public in Klang Valley. Cross-sectional, closed-ended, self-administered survey questionnaires were distributed to 384 respondents in Klang Valley on accessing the public opinion of knowledge on HIV transmission modes, perception, attitudes about people living with HIV/AIDS, and people's understanding of government policies to eliminate HIV/AIDS. Descriptive analysis (mean and standard deviation) and inferential analysis (*t*-test) were conducted for data analysis. Of 384 respondents, there were more female respondents than male respondents. Health care practitioners and newspapers were the preferred sources of information on HIV/AIDS among the public. Most of the respondents were aware of the modes of HIV transmission. However, mosquito bites, kissing, sharing food and drinks, and sharing utensils are the misconceptions of modes of transmission that still exist among the surveyed respondents. The mean scores for perception and attitude towards people living with HIV/AIDS (PLHIV) were 3.53 (SD =.61) and 3.30 (SD = .61) respectively. The *t*-test results showed that there is a significant difference between gender and education groups on public's perception towards PLHIV. However, only gender was found to be statistically significant different on the public's attitude towards PLHIV. Most of the respondents did not hear about the government's significant policies to address HIV/AIDS in the region. Overall, the respondents had certain knowledge on HIV transmission modes and moderate positive perception and attitude towards people living with HIV/AIDS. However, it seems that the effectiveness of media is not up to par in terms of rectifying people's misperception about HIV/AIDS and towards PLHIV, as well as providing information on the government initiative to tackle HIV/AIDS among the wider community. Future studies should be conducted into the plight of who set the agenda in the media, and apart from gatekeepers, who is the real decision maker in deciding what is important to let public to think about.

Keywords: HIV/AIDS, knowledge, perceptions, attitudes, perceived risk.

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Introduction

In the field of communication, the media shape our definitions of various social phenomena through the way they represent and report on different experiences. In other words, the media that we consume often help us to understand society and even ourselves. The standard and old adage in most of the communication research is that *media do not tell people what to think, but what to think about* (Entman, 1989; Baran and Davis, 2006). Even in the public health circle, mass media have been a powerful tool for health care practitioners and health departments to circulate public health information to the general population. This sort of public health information, such as information pertaining to HIV/AIDS prevention and treatment, helps people to understand recent developments on vaccines in the country or even in the world. Through the media circulation and the saliency of HIV/AIDS-related issues, it posits that the people are well-informed about the issues through the media, and later will discuss the matter within their community and peers and try to form their own individual opinion about the issues.

Over the span of 30 years, HIV/AIDS continues to be one of the most challenging developmental issues in human history. Many people, in general, assume that HIV/AIDS is associated with immorality, dangerous lifestyles, and illegal drug use (Malik Badri, 1997; Nelkin, 1991). Surprisingly, newborns, mothers, children, and youths are currently the vulnerable groups affected by and infected with HIV. When an infected mother feeds her newborn, or people deem that having sex with 100 virgins could cure a man of HIV, or even knowledgeable college students perceived mosquito bites can transmit HIV, these reveal to us that disseminating accurate information and advocating behavioural change for their beneficial are essentially indispensable (Chance and Deshpandé, 2009; Inungu, Mumford, Younis, and Langford, 2009).

To a certain point, when we talk about the media's power on the issue of HIV/AIDS, one thing that should not be forgotten in our discussion is that how the media "effects" might operate and its effectiveness to the targeted people. Media coverage could be an essential but neglected explanatory variable in research on public opinion towards HIV/AIDS-related issues, especially in Malaysia. In order to understand this, the major contribution of this study is to examine the effectiveness of media in public opinion formation on HIV/AIDS issue among the public in Klang Valley.

Media agenda setting asserts that the news media influences public perception about what is most important to think about rather than asking people what to think by highlighting certain issues or events more than others (Dearing and Rogers, 1996). In this research, we argue that since Malaysia has experienced its first outbreak of HIV/AIDS in 1986, and the media have done amazing job in creating keen awareness among the general public, the people should, to certain extent, aware of the government efforts in terms of implementing various policies and programmes. On top of that, the people should also have positive perception and attitude towards people living with HIV/AIDS. We propose a series of research questions such as: What is the people's understanding of HIV/AIDS over the past 30 years? What are the primary source(s) that people mostly used so as to get HIV/AIDS-related information? How the public react towards people living with HIV/AIDS? How effective of government policies and communication campaigns in terms of their visibility among the public? Before answering those proposed questions, it is ideally to undress the causal relationship of media and the public in terms of discussing the media effect on public opinion formation.

The Media and Public Opinion

The idea of the media is in a position to potentially influence public opinion on an issue or event has been testified in media agenda setting research (McCombs and Shaw, 1972; Hubbard, DeFleur, and DeFleur, 1975; Mutz and Sozz, 1997; Dearing and Rogers, 1996; Syed Arabi Ibid and Chang, 2012). Under the essence of media agenda setting, the process of getting an issue to become an agenda must be helped by issue proponents. These proponents might be a news reporter who keens to gain public attention on a particular issue over others. Agendas that carried out by issue proponents are then being transferred from the media to the public, thereafter public opinion formation takes place. In order to make an agenda salient among the others, media practitioners will "dress up" the agenda, framed in a certain way, on the media agenda. Therefore, when public expose the highlighted agenda through the mass media, it allows a social environmental problem/issue to be transformed into a public issue. A public issue which widely discussed within a community will then be influential to policy making. Hence, in short, successful media advocacy essentially place a specific issue salient among the public, thereafter turning it into public discussion, and ultimately gaining attention from the policy makers.

It is well-known among the media scholars that the media agenda setting consists of media agenda, public agenda and policy agenda. These three agendas become a simple linear process, and these three components are rather inter-correlated (Litterjohn, 2002). According to the theory, public perceive issues that receive most media coverage to be those of greatest importance (McCombs and Shaw, 1972). As mentioned earlier, issue proponents can be newspersons, policy makers or even public who concern more about a particular issue happens in the world. Notwithstanding, one thing should be considered here is that an issue, for instance HIV/AIDS may continue to secure in the media agenda and attract public attention or it may not, depending on the news values of other issues where each of them has its proponents, and the ability of proponents of the issue to generate new information or story to the public so as to maintain its newsworthiness. Clearer picture is that, for example, if a mainstream media keeps reporting the meaning of HIV/AIDS or/and its modes of transmission frequently in the communicating text, the general public will feel bored of the agenda and fail to communicate with the people.

In any democracy, public opinion is significant to determine what governments do in policy making (Page, Shapiro, and Dempsey, 1987). Contemporary, public opinion is a collection of ideas or views held by persons who are interested in a subject. Other common definition explicates that public opinion is the sum of individual views on an issue thereafter affecting those individuals (Wilcox and Cameron, 2012). Stated another way, public opinion represents a consensus; a census from many individuals, begins with people's attitudes toward the issue happens in this universe. Allport (1937) noted that public opinion embraced verbalization and communication among many individuals in which it represents action or a readiness for action by an individual who was aware that other individuals were doing and reacting the same towards a discussed phenomenon or issue (quoted in Davison, 1958). Davison (1958) has well-described that an issue begins to be known only when it is communicated from one person to another, and then carries it further in his conversation. Therefore, in order to let an issue begins to be known, the media have such a role.

In agenda setting theory, public agenda explains how the media influence the formation of public opinion on an issue. Since HIV/AIDS becomes the hyperendemic and the number of infections is continued to rise in certain countries, the issue has become a part of the media agenda and public agenda. Media agenda set the story in order to induce public to think about the story in terms of the seriousness, prevention, treatment, support, etc related to HIV/AIDS. At the same time, the media also create a platform for public discussion on a particular issue. However, there is lacking of research, to my knowledge, on examining the effects of media about public's understanding of HIV/AIDS in Malaysia. The lack of public opinion study from the perspective of media effects especially on HIV/AIDS-related issue has diverted the interest of the researchers on grasping how effective of the Malaysian media forming the public's understanding on HIV/AIDS issue and the government implemented policies and communication campaigns over other issues.

Research Methodology

As mentioned in the earlier part, this study aimed to ascertain the effectiveness of the media in formulating the public opinion on knowledge, perception and attitude on HIV/AIDS and people living with HIV/AIDS. On top of that, this study also inclines to examine the reach and visibility of some government policies and communication campaigns that relate to HIV/AIDS among the respondents. In this respect, this session explicates the design of methods and techniques used in collecting the data for answering the objectives of this bulk of paper. In order to examine the media effectiveness, a total of 372 news articles related to HIV/AIDS from three Malaysian mainstream newspapers were examined for 2006 and 2011. Year 2006 was chosen as the study sample is because the National Strategic Plan on HIV/AIDS 2006-2011 was announced by the government in 2006. The results showed that the coverage of HIV/AIDS in the three selected newspapers was unevenly distributed comparing the both years. The Figure 1 shows the results.

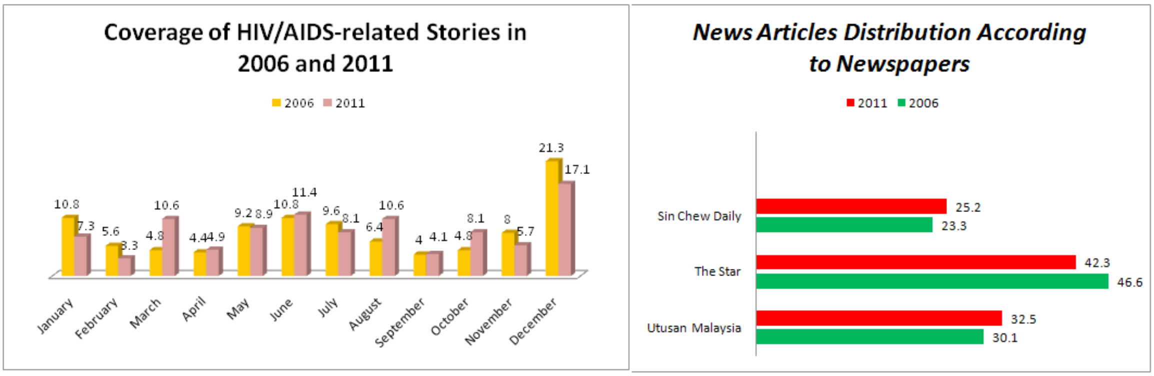

Figure 1. Coverage of HIV/AIDS-related stories in 2006 and 2011 and news articles distribution according to newspapers.

Based on the results, it showed that both December 2006 and 2011 showed a peak with the most number of HIV/AIDS news articles and social marketing programmes coverage in which 21.3 percent or 53 units and 17.1 percent or 21 units respectively. In terms of newspaper per se, *The Star* contributed the most news articles related to HIV/AIDS and social marketing programmes for the both examined years. Comparing the both years, it abundantly showed that there was a reduction of 126 units from 249 units in 2006 to 123 units in 2011 (50.6 percent decrease) in terms of news related to HIV/AIDS and social marketing programmes in all examined newspapers.

In respect to scrutinizing the impact of media agenda and public agenda opinion formation towards the readers, we examined further with questionnaire survey in understanding does media make a difference in terms of public's perception and attitude on people living with HIV/AIDS, as well as their awareness of government policies on HIV/AIDS.

Sample selection

A stratified random sampling was carried out in Klang Valley in which included 384 respondents in total. Based on the list of demographics obtained from the Department of Statistics Malaysia, Klang Valley is categorized into six districts: (1) Federal Territory of Kuala Lumpur, (2) Gombak, (3) Klang, (4) Petaling, (5) Sepang, and (6) Ulu Langat, and had a total population 1, 877, 253 people for all six districts that mentioned as of 2010. The researchers employed Krejcie and Morgan's formula to ascertain the sample size (Krejcie and Morgan, 1970). As a result, 42 respondents were assigned to areas with the total population lesser than 1, 000, 000 people, while areas with a total of population exceeds 1, 000, 000 people would be assigned 43 respondents. In total, 384 respondents were included in the study. Respondents were well-informed that their participation is absolutely voluntary and their identification will remain confidential. Therefore, verbal consent was obtained prior to beginning the survey.

Instrument development

A pre-tested self-administered close-ended questionnaire was distributed to the respondents in Klang Valley. The instrument was developed and modified to the need of this study based on previous research (Shah et al., 1991; Siti Norazah, Huang, Low, and Wong, 2007; Inungu, Mumford, Younis, Langford, 2009; Turk, 2006). The questionnaire comprised five sections: (i) socio-demographic characteristics, which included gender, age, ethnicity, religion and education level; (ii) preferable sources in obtaining HIV/AIDS-related information and knowledge of HIV/AIDS; (iii) perception on People Living with HIV (PLHIV); (iv) attitudes towards People Living with HIV/AIDS (PLHIV); and (v) salience of government policies and communication campaigns on HIV/AIDS. There were 22 items to assess respondents' preferable source in getting HIV/AIDS-related information and their knowledge about HIV/AIDS (Cronbach's Alpha = .79). Another six items to measure respondents' perception on PLHIV and attitude towards PLHIV respectively (Cronbach's Alpha = .72 for both). Scoring was based on a 5-point Likert Scale in which a value of one (1) to five (5) was assigned to each respondent for response options ranging from strongly disagree to strongly agree.

Statistical analysis

The Predictive Analytics SoftWare (formerly known as Statistical Package for the Social Sciences) version 20.0 was used for data management and analyses. Descriptive statistics including frequencies, means and standard deviations were performed to give general descriptions of the data. The items in variable of perception on PLHIV and attitude towards PLHIV were summed to create individual mean scores with higher scores indicating more positive perception and attitude toward PLHIV. Independent *t*-test was conducted to compare the difference between mean of perception and attitude towards people living with HIV/AIDS (PLHIV) between male and female respondents and lower education and higher education groups.

Results

Socio-demographic characteristics

Table 1 presents the socio-demographic characteristics of the sample. The overall response rate of this survey was 100%. Of all the 384 respondents, more than fifty percent of the respondents were female (54.7 percent) and 45.3 percent was males. The average age of respondents was 28.35 years (SD = 11.52). In terms of ethnicity, the majority of participants were Malays (55.2 percent), followed by Chinese (30.2 percent), Indians (12.2 percent) and others consists of indigenous were 2.3 percent. Regarding the religion, more than half of the respondents were Islam with 56.8 percent, and another 43.2 percent were non-Muslims. Speaking of the education level, 58.3 percent of the respondents have tertiary education, 25.8 percent of the respondents have at least upper secondary education (Form 5—SPM), and only 0.3 percent or one respondent has no formal education.

Table 1.
Socio-demographic characteristics

Variable	Description	Frequency	Percent
Gender	Male	174	45.3
	Female	210	54.7
Age	Mean ± SD	28.35 ± 11.52	
Ethnicity	Malay	212	55.2
	Chinese	116	30.2
	Indian	47	12.2
	Others	9	2.3
Religion	Islam	218	56.8
	Buddhist	69	18.0
	Taoist/Confucianism	15	3.9
	Hindu	38	9.9
	Christian	28	7.3
	Catholic	7	1.8
	Others	9	2.3
Education Level	No formal education	1	0.3
	Primary	5	1.3
	Lower secondary (Form 3)	22	5.7
	Upper secondary (Form 5)	99	25.8
	Vocational school	29	7.6
	University/college	224	58.3
	Others	4	1.0

N=384

Sources preference

The majority of the respondents have heard about HIV/AIDS. Only six respondents, however, still never heard about the disease albeit Malaysia has experienced the disease for 26 years. In accordance to that, these six persons were excluded from the data analysis. The respondents obtained HIV/AIDS-related information from various sources. Based on the results, 79.9 percent of the respondents (out of 378 respondents) still put their faith on health care practitioners in terms of getting HIV/AIDS-related information. Although with the proliferation growth of new media (i.e., television, radio, Internet), newspaper (73.3 percent) is still being considered as the preferred media source for the respondents to obtain the information about HIV/AIDS and social marketing programmes. Compared to Internet (72.2 percent), television (73.1 percent) is slightly higher in regards to acquiring information of HIV/AIDS and social marketing programmes among the surveyed respondents. Low proportion of respondents would consider seeking information on HIV/AIDS and social marketing programme from partner (48.5 percent), friends (46.1 percent) and relatives (44.5 percent). The result indicated that although there is no much different among the newspaper, television and Internet in respect of respondents' preferable source(s) on HIV/AIDS and social marketing programmes information seeking, newspaper is still the preferred source for the respondents to seek HIV/AIDS-related information and social marketing programmes.

Knowledge of modes of transmission

Table 2 presents that, on questions about mode of transmission, most of the respondents agreed HIV can be transmitted through unprotected sexual intercourse (92.6 percent) and pregnancy (67.2 percent). However, of all 378 respondents, some people were still thinking that skin contact (6.3 percent), kissing (28.3 percent), cough/sneeze (21.1 percent), bites from mosquitoes or other insects (32 percent), sharing foods or drinks (23.1 percent), sharing clothing (nine percent), and sharing utensils (22.8 percent) are the modes of HIV transmission.

Table 2.
Response of modes of HIV/AIDS transmission

Way of Transmission	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Sex contact without proper protection (heterosexual or homosexual)	13 (3.4%)	5 (1.3%)	10 (2.6%)	81 (21.4%)	269 (71.2%)
Skin contact (hug or shake hands)	172 (45.5%)	127 (33.6%)	44 (11.6%)	24 (6.3%)	11 (2.9%)
Kissing	74 (19.6%)	101 (26.7%)	96 (25.4%)	73 (19.3%)	34 (9%)
Cough/sneeze	88 (23.3%)	110 (29.1%)	100 (26.5%)	64 (16.9%)	16 (4.2%)
Bites of flies/mosquitoes/other insects	77 (20.4%)	97 (25.7%)	83 (22%)	91 (24.1%)	30 (7.9%)
Sharing foods or drinks	110 (26.5%)	114 (30.2%)	77 (20.4%)	66 (17.5%)	21 (5.6%)
Sharing clothing	123 (32.5%)	150 (39.7%)	71 (18.8%)	26 (6.9%)	8 (2.1%)
Sharing utensils (e.g., spoon, cup, fork, etc.)	92 (24.3%)	113 (29.9%)	87 (23%)	66 (17.5%)	20 (5.3%)
Pregnancy	18 (4.8%)	37 (9.8%)	69 (18.3%)	97 (25.7%)	157 (41.5%)
Living/working with a person who has AIDS	135 (35.7%)	118 (31.2%)	74 (19.6%)	35 (9.3%)	16 (4.2%)

N=378

Perception towards people living with HIV/AIDS (PLHIV)

The respondents' perception toward people living with HIV/AIDS (PLHIV) is summarized in Table 3. In terms of percentages, a high percentage of the respondents (75.1 percent) agreed PLHIV still have the ability to work. About 60.9 percent of the respondents agreed PLHIV should be isolated from other people. More than fifty percent of the respondents (64.3 percent) agreed PLHIV should not be ashamed of themselves. Less than fifty percent of respondents (30.7 percent) agreed PLHIV are not clean. 50.8 percent of the respondents disagreed PLHIV should not have children. For them, PLHIV can have children even they are affected with HIV. 65.3 percent agreed PLHIV should be blamed for bringing the disease into the community.

The mean perception towards people living with HIV/AIDS (PLHIV) of the respondents was 3.53 (SD = .61). The score indicated a moderate positive perception among the respondents on PLHIV. The female had a higher mean total score (3.60 ±SD = .60) than male respondents (3.45 ±SD = .61). The mean total score was 3.29 (SD = .56) for low education group and 3.55 (SD = .61) for higher education group. Significant differences were observed between male and female; lower education group (below PMR) and higher education group (above SPM) on the respondents' perception towards PLHIV. The independent *t*-test indicated that there is a significant difference between male and female, $t(376) = -2.485, p<.05$ on their perception towards PLHIV. In terms of education level difference, the *t*-test also showed that there is significant difference in education level on the perception towards PLHIV among the respondents, $t(376) = -1.994, p<.05$.

Table 3
Public's perception toward people living with HIV/AIDS

Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
People living with HIV/AIDS still have the ability to work.	10 (2.6%)	18 (4.8%)	66 (17.5%)	195 (51.6%)	89 (23.55%)
People living with HIV/AIDS should be isolated from other people.	19 (5%)	24 (6.3%)	105 (27.8%)	133 (35.2%)	97 (25.7%)
People living with HIV/AIDS should not be ashamed of themselves.	21 (5.6%)	37 (9.8%)	77 (20.4%)	156 (41.3%)	87 (23%)
People living with HIV/AIDS are not clean.	14 (3.7%)	32 (8.5%)	100 (26.5%)	147 (38.9%)	85 (22.5%)
People living with HIV/AIDS should not have children.	83 (22%)	109 (28.8%)	106 (28%)	56 (14.8%)	24 (6.3%)
People living with HIV/AIDS should be blamed for bringing the disease into the community.	18 (4.8%)	28 (7.4%)	85 (22.5%)	155 (41%)	92 (24.3%)

N=378

Attitude towards people living with HIV/AIDS

Table 4 portrays the public's attitude towards PLHIV. The results showed that on the whole, the respondents had a moderately positive attitude towards PLHIV. They scored a mean of 3.30 (SD = .60). In details, only 49.2 percent of them willing to work with PLHIV of they are asked to do so. More than fifty percent of the respondents will keep away from their close friends or kin if they are seropositive (57.4 percent), and 65.7 percent were of the opinion that they would not talk to friends or family members about HIV/AID-related issues. Speaking of willingness to buy food from the vendor or shopkeeper who has HIV and to have meal with AIDS people, 26.9 percent and 39.7 percent of the respondents agreed to practice so. 29.1 percent of the respondents will refuse to let others know if one of their friends or family members got infected with HIV.

Independent *t*-test was conducted to ascertain the differences between male and female; lower education and higher education groups on their attitude towards PLHIV. The test showed that there is significant difference between male and female on their attitude towards people living with HIV/AIDS, $t(376) = -2.200, p<.05$. However, the result showed there is no significant difference between lower education and higher education group attitude towards PLHIV, $t(376) = -.856, p>.05$.

Table 4

Public's attitude towards people living with HIV/AIDS

Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I would be willing to work with people living with HIV/AIDS, if I am asked to do so.	10 (2.6%)	30 (7.9%)	152 (40.2%)	139 (36.8%)	47 (12.4%)
I would keep a certain distance from my close friends or family if they have HIV.	8 (2.1%)	34 (9%)	119 (31.5%)	146 (38.6%)	71 (18.8%)
I would not talk to friends or family members about HIV/AIDS related issues.	11 (2.9%)	32 (8.5%)	87 (23%)	162 (42.9%)	86 (22.8%)
I would be willing to have meal with AIDS people.	22 (5.8%)	69 (18.3%)	137 (36.2%)	110 (29.1%)	40 (10.6%)
I would buy food from a shopkeeper or vendor even if I knew that this person has HIV.	43 (11.4%)	101 (26.7%)	132 (34.9%)	72 (19%0	30 (7.9%)
If a friend or family member got infected with HIV, I would want it to remain a secret.	46 (12.2%)	100 (26.5%)	122 (32.3%)	72 (19%)	38 (10.1%)

N=378

Government policies and communication campaigns on HIV/AIDS

Most of the government policies on HIV/AIDS least heard by the respondents and only one policy heard by many—the Pre-marital HIV testing for Muslim couple (52.1 percent). Only few of the respondents (17.7 percent and 14 percent respectively) heard about the National Strategic Plan on HIV/AIDS 2006-2010 and 2011-2015 (Table 5). 33.9 percent of the respondents heard about the Needle Syringe Exchange Program (NSEP) and the Prevention and Control Infectious Disease Act 342 (1988). In terms of communication campaigns on HIV/AIDS, most of the people were aware of the questioned programmes. 52.9 percent and 55.8 percent of the respondents heard about the PROSTAR and the World AIDS Day respectively. For the Standard Chartered-AIESEC HIV/AIDS Learning Network Programme, only 21.2 percent of the respondents knew about the programme.

Table 5

The salience of government policies and communication campaigns on HIV/AIDS

No	Government Policies	Yes	No
1.	National Strategic Plan on HIV/AIDS 2006-2010 (NSP)	67 (17.7%)	311 (82.3%)
2.	National Strategic Plan on HIV/AIDS 2011-2015 (NSP)	53 (14%)	325 (86%)
3.	Pre-marital HIV Testing for Muslim couple	197 (52.1%)	181 (47.9%)
4.	Needle Syringe Exchange Program (NSEP)	128 (33.9%)	250 (66.1%)
5.	Prevention and Control Infectious Disease Act 342 (1988)	128 (33.9%)	250 (66.1%
	Communication campaigns		
1.	Program Sihat Tanpa AIDS untuk Remaja (PROSTAR)	200 (52.9%)	178 (47.1%)
2.	Standard Chartered-AIESEC HIV/AIDS Learning Network Programme	80 (21.2%)	298 (78.8%)
3.	World AIDS Day	211 (55.8%)	167 (44.2%)

N=378

Discussion

Twenty-six years following the first report on HIV/AIDS in Malaysia (Abu Bakar Sulaiman, 1991), it is pivotal to examine how the effects of media contribute to public's understanding of government policies on HIV/AIDS. Results from this cross-sectional survey should be useful for monitoring and evaluating media effects on formulating public perception and attitude as well as understanding on the government policies on HIV/AIDS and people living with HIV/AIDS. On top of that, the results should also be useful for future research in further examining the role of agenda setting theory in portraying public health information to the general population via mass media.

Our results showed the major sources of information on HIV/AIDS were health care practitioners and newspaper. It may due to health care practitioners are able to provide the public with accurate information, not only on HIV/AIDS per se, but for all public health information. In this study, health care practitioners are believed to be the more reliable source for the people. Among the mass media, newspaper earned the highest agreement among the surveyed samples in Klang Valley as a source for information seeking on HIV/AIDS and social marketing programme. The reason might simply due to its inexpensiveness and ease of access of the vehicle in the community. In terms of the respondents' knowledge on the modes of HIV transmission, this study showed that the overall knowledge of the respondents surveyed was good. However, there were still some of the respondents have misconceptions about the modes of HIV transmission. Reports that mosquitoes' bites, kissing, sharing foods or drinks and sharing utensils can transmit HIV/AIDS, underpin the need for more education about HIV/AIDS among the general population.

Speaking of the respondents' perception and attitude towards people living with HIV/AIDS, the results showed a moderate positive perception and attitude among the surveyed respondents on PLHIV. The inferential statistical test proved that there is significant difference between male and female, lower education and higher education groups on perceiving the people living with HIV/AIDS. For the respondents' attitude towards PLHIV, the significant difference only showed among the male and female, and no significant difference for the education groups. The results have somewhat indicated that though Malaysia has experienced the disease since 1980s, differences between male and female and lower and higher education groups still exist in the population about their perception and attitude towards people living with HIV/AIDS. The exposure of information and messages within the community on HIV/AIDS-related issues seem inadequate and ultimately result to the pervasive of stigma and discrimination in the wider community. The results are also suggesting us that while we have made impressive efforts at achieving results to tackle this epidemic, we seem to be leaving some people behind in terms of information provision about HIV/AIDS.

Tong (2006) mentioned that the international AIDS reporting can be described in three phases, which are initial reaction of fear and ignorance, development of awareness, and finally a concentration on precise scientific and policy developments. Therefore, it posits that the media should now focus more on policy developments; go beyond than just generating awareness to the public. However, the results are not linked to the said. Our results revealed that more than half of the respondents did not hear about the government's significant policies on HIV/AIDS especially the National Strategic Plan on HIV/AIDS (NSP) both in 2006-2010 and 2011-2015, the Needle Syringe Exchange Programme (NSEP) and the Prevention and Control Infectious Disease Act 342 (1988). Fortunately, fifty-two percent of the respondents did hear about the policy on pre-marital HIV screening programme among the Muslims. Based on the results, it indicated that although the media served as a purveyor of information to the public about the public health information and deems to be truth, providing information of government's initiative on HIV/AIDS prevention and policy making is somewhat low throughout the community at large. In fact, these kinds of information and awareness messages are still vital and people should be informed because they are also part of the stakeholders.

Over the span of twenty-six years, we propose the general public should have, to certain extent, portrayed positive perception and attitude towards people living with HIV/AIDS. However, the mean scores indicated only moderate positive perception and attitude towards PLHIV among the respondents. We cannot really blame on the media or the public per se of lacking of coverage or knowledge about HIV/AIDS. As aforementioned, the three agendas (media agenda, public agenda and policy agenda) are a simple linear process in agenda setting theory, and these three components are rather inter-correlated in setting an agenda for public discussion on particular issues (Littlejohn, 2002). While it took several years for newspapers to begin reporting on HIV/AIDS, we concluded that based on the exploratory results, it seems the effectiveness of media has not really up to the par in terms of rectifying people's misconceptions and misperception on HIV/AIDS and towards PLHIV, as well as providing information on government initiative and efforts in tackling HIV/AIDS to the wider community. Since this study is an exploratory research on questioning the effectiveness of media on public opinion formation on HIV/AIDS-related issues and social marketing programmes, the researchers would suggest the future research in dwelling into the plight of who set the agenda in the media, and apart from gatekeepers, who is the real decision maker in deciding what is important to let public to think about.

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Analysis of the Boxer War Reports in the *New York Times*: 1900-1901

Fanyijing Wang [1]

Abstract

The Boxer War was an incident in which a lot of countries were involved in modern history. The narratives of the Boxer War in different languages are often the subject of historical study. The international public opinion of the Boxer War is one kind of narrative, which should be studied as providing us more perspectives of foreign countries during that time.

The major methods applied in this study are content analysis, discourse analysis, historical comparison, metrological historiography, also combined quantitative analysis and qualitative analysis.

Newspaper content from the New York Times from 1900 to 1901 has been analyzed in this paper. The arguments I have here are:

- During the Boxer War, "China" or "boxer" didn't really draw the New York Times' attention, but other countries' China policy caused major discussions in media, because all the countries involved in this war competed for their own interests in China. The amount of the reports shows the attention rate to some extent.

- On the news source, most of the reports about the Boxer War in the New York Times came from cities outside China, for example, Washington D.C., London, Boston, Berlin, etc. This fact manifests that New York Times didn't pay much attention about how the war developed in China, but focused on other countries' reactions.

- The high frequency of key words like "government", "department", "missionary", "foreign", "force" shows the attention and the recognition of this incident by the New York Times. This observation indicates that the nature of the Boxer War was recognized as an international conflict to which governments' related policies were highly relevant and to apply military action was an option.

- According to the macro discourse analysis, I attempted to generalize the propositions included in these reports from the New York Times and tried to reconstruct the news schemata about reports about the Boxer War. The analysis results show that the New York Times had very strong nationalistic color. On one hand, these reports explained and rationalized American military behaviors in China, on the other hand, the New York Times tried to construct a powerful and superior image of America; when it comes to other countries, bias and imaginary enemies appeared.

- The voice of hawks in the New York Times were comparably restrained, part of the reason was the newspaper's neutral value they had for years, but the major reason was America's wait-and-see attitude on China policy during that time.

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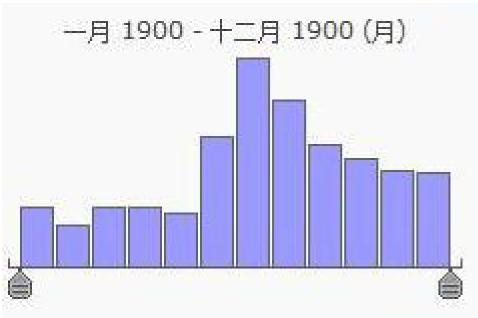
Newspaper content from the *New York Times* from 1900 to 1901 has been analyzed in this paper.

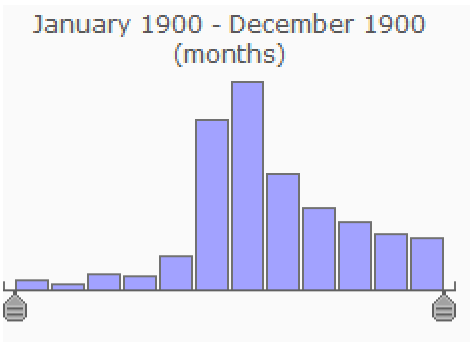
During the Boxer War, "China" or "boxer" didn't really draw the *New York Times'* attention, but in other countries China's policy caused major discussions in the media, because all the countries involved in this war competed for their own interests in China. The amount of the reports shows the attention rate to some extent.

According to the searching result from ProQuest, there are 50,611 articles published in the *New York Times* in 1900, among them, 1,909 articles are related to China (search by the key word "China"), 3.8% in total, which shows low attention. Compared to another war happening on another continent, the "Boer War" related reports are 3,035, 6% in total, had higher attention than the Boxer War. One reason could be western colonists entered Africa earlier than they entered into China, they were controlling more in Africa by then so they cared more.

Below is the amount of "China" related articles, from January to December in 1900:

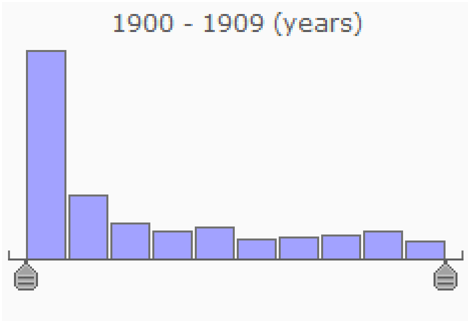


The amount of reports reached a peak in July, this is a positive correlation with the development of the Boxer War in 1900. Also we can see the fluctuating amount of the "China Boxer" related reports



To be more specific, the peak of reports on the Boxer War came up when eight powers entered China on May 31st 1900. We can tell from the chart above, the dramatic increasing of reports in June, the amount of reports dropped slowly after the peak. That's because there were a lot of ends and rehabilitations afterwards also draw a lot of attentions from foreign countries, maybe even more attention, especially because a couple of treaties were signed between China and other powers.

The Boxer War and its consequences lasted for years, there were 2,183 "China" and "Boxer War" related articles in 1901, 1,175 in 1902 and 927 in 1903. After 1903, China related articles stayed at a comparably low and stable amount.



On the news source, most of the reports about the Boxer War in the *New York Times* came from cities outside China, for example, Washington D.C., London, Boston, Berlin, etc. This fact indicates that the *New York Times* didn't pay much attention about how the war developed in China, but focused other countries' response to it.

Here is a random sampling of "China" related articles from 1900 to 1901 in the *New York Times*:

1. Untitled (London, June) -- The Peking correspondent of the Times
2. China Battlefield -- Peking, March 27
3. China Emperor killed himself? -- London, Jan 26. According to a special dispatch from Shanghai
4. Ask France to take some actions – Paris, June 18
5. The dilemma the State Council is facing on China issue—Washington, June 6
6. All the foreigners are dead in Beijing? – London, July 2. (A dispatch to The Daily Express from Nanking) (diverse sources confirmed a same message)
7. Foreigners in China – Washington, June 21.
8. Catholic missionaries in China had been blamed -- Brooklyn
9. Fragments from and about China -- From The London Mail
10. Boxers are blackmailing -- Boston□July 14. A letter received by J.S. Newton & Co. Canton correspondents late January, a translated letter
11. South provinces are going to independent? -- Washington□July 4
12. Cold China -- Tien-Tsin□Nov.24
13. Allied countries are preparing for the winter in China -- Foreign Correspondence *New York Times*□ Peking□Sept. 5
14. Japanese left China -- Peking□Oct. 2
15. U.S. warned China -- Washington
16. Could ask China to cooperate -- Washington
17. "Boxer" vs. "powers" -- review
18. The truth closed to China -- review
19. Topics on Times -- London
20. Boxer
21. Our interests in China -- review
22. No harmony among powers -- Berlin□June 7.
23. Mr. Conger asked for rescue -- Washington□May 29
24. China and powers -- review
25. No specific news about envoys
26. Roosevelt answers Blain -- Evansville□Ind., Oct. 12
27. Kaiser agreed on "New China Plan" -- London, Sept. 29
28. Scattering missionaries□2□-- London, July 26
29. China asked for interfere -- Washington, July 22
30. Germany joined the cooperation -- Berlin, June 8

In the 30 samples above, they are all "China" related, but only 5 of them had news sources from cities in China. Meanwhile, there were 11 sources from European cities, 10 sources from American cities, and 6 of them had unknown source.

Source of news shows the sociality of news making. We can see the basic values and viewpoints of news editors of a particular newspaper. All choices have particular motivations and the source of news is no exception.

Based on the historical context of the Boxer War we know that it was impossible for journalists get first-hand news sources during the time boxers surrounded the Embassy in June 1900. From the samples we can see, the news deprived from China was in March, October and November, none of them were in June, July or August. To American readers, China was a far away and mysterious country by the beginning of the 20th Century. They knew less and care less. The issue American readers cared most was if their friends or family got hurt by boxers, if their business in China had been damaged and what American government would do about this incident in China. So, generally speaking, the China related reports in the *New York Times* during that time had a strong nationalistic color, which was actually historically unavoidable.

The high frequency of key words like "government", "department", "missionary", "foreign", "force" shows the attention and the recognition of this incident by the *New York Times*. This observation indicates that the nature of the Boxer War was recognized as an international conflict, which governments related policies were highly relevant, and to apply military action was an option.

In 1900 the *New York Times* had 604 "China Boxer" related articles, among them, 152 articles were in "Front Page/Cover Story" section, 349 of them were as "Feature" reports, which show the high attention and serious attitude on this topic.

We can also see that if the key word is "China" or "Chinese", the amount of related reports is 237 in total; "America" 46 times; "Washington" 13 times; "British" and "Britain" 33 in total; "London" 9 times; "French" 22 times; "Russia" and "Russian" 34 times in total; "Japan" and "Japanese" 41 times in total; "Germany" and "German" 32 times in total; "Europe" and "European" 23 times in total.

Some other high frequency key words:

Government	86	Army	15
Department	37	State	66
Missionary	33	Country	18
Foreign	41	Nation	14
Firm	35	Emperor	21
Force	34	Empire	5
Troops	21	Imperial	18
Good	33	Great	39

The frequency of key words shows where *New York Times*' attention was and also gave us a clue of the attitude of this newspaper towards the Boxer War. So, to generalize, the themes the *New York Times* paid high attention to in 1900 and 1901 included: relationships with other powers, military actions of other powers in China, government actions and foreign policies of China and powers, etc. Except governments of eight powers and China, another two important roles in this incident were foreign missionaries and enterprises in China, which also manifested in the frequency of key words. Besides, there was no negative words among high frequency key words, which also manifested the attitude of the *New York Times* at some point.

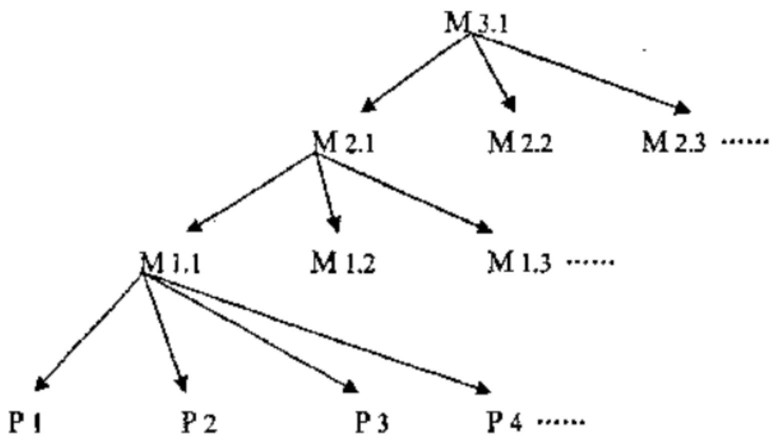
The titles of editorials or articles on the front page always present the highest concerns a newspaper has. These are some samples from "front page/cover story" Section in the New York Time 1900-1901:

1. ROOSEVELT ANSWERS BRYAN'S QUESTIONS
2. KAISER AGREES TO A NEW CHINA PLAN
3. ALL MISSIONARIES FLEEING. (2)
4. NO DEFINITE NEWS ABOUT THE ENVOYS
5. CHINA ASKS INTERVENTION
6. GERMANY TO CO-OPERATE
7. NO HARMONY AMONG POWERS
8. MINISTER CONGER ASKS AID

From the titles of articles above, we can see the issues the *New York Times* were concerned with were foreign policy, what kind of role America was going to play in the Boxer War, how these consequences of this incident affect American interests in China. We can tell that the biggest attention the *New York Times* had during that time was on very practical levels, about how to deal with this China issue, including the president's opinion on this issue, other countries' opinions and actions on and in China, cooperating relationship or hostile attitudes among different western countries. A lot of reports were on these kinds of topics.

According to the macro discourse analysis, I attempted to generalize the propositions included in these reports from the *New York Times* and tried to reconstruct the news schemata about reports of the Boxer War in this highly circulated newspaper in America during the Boxer War. The analysis results show that the *New York Times* had very strong nationalistic color. On one hand, these reports explained and rationalized American military behaviors in China, on the other hand, the *New York Times* tried to construct powerful and superior image of America; when it comes to other countries, bias and imaginary enemies appeared.

On the macro discourse analysis method I applied in this article (see, News as Discourse by Teun A. Van Dijk 1988). There are 3 structures of Van Djik theory: macro (related to the theme or ideology), meso, related to the steps of discourse (introduction, main idea, closure) and micro, related to the micro discussions, such as, phoneme, morpheme, syntax, style, meaning, etc. I tried to analysis the samples from the *New York Times* 1900-1901, from proposition to Proposition Sequences, followed the steps like generalization, construction, etc. See the chart below:



Via the macro discourse analysis, we can reach a conclusion on theme or ideology level, which is telling us the attitude of the *New York Times* during that time.

Generally speaking, the voice of hawks in the *New York Times* were comparably restrained, part of the reason was the newspaper's neutral value they had for years, but the major reason was America's wait-and-see attitude on China policy during that time.

America has always tried to play an important and unique role in this China incident, had multiple goals and changing attitudes. On one hand, envoy of America attempted to build a strong bond with Qing Court, showing their support to the Emperor. However, when the Emperor or Cixi didn't follow America's intentions, from the envoys to American government turned their attitude into a very tough one. We can see these two dramatically different attitudes from the *New York Times* articles.

America made efforts to implement an "open door policy" since the end of 19th century, by which they focused on long-term goals in China. So America did not advocate the use of violence, they tried to keep China a complete country from other military threats. At the same time, America tried to ally with Russia but showed great dissatisfactions on Russia's China policy. We can see a number of related articles from the *New York Times*. We can also find related articles that America disliked the geographical advantages Japan had to China during that time.

The observation of the *New York Times* China reports in 1900 and 1901 also echoed to the isolationism of America's China policy. American isolationism icon senator Henry Cabot Lodge expressed that European countries tried to divide up China. The American government seemed completely indifferent, using no change to respond to changes.

The Role Of Popular Science Activities During Emergency: A Case study "Scientists and Media Face to Face" in China

Wu Dan [1]
Zhong Qi [2]

Abstract

The series of activities "Scientists and Media Face to Face" are organized by the China Association for Science and Technology (CAST) in order that scientific community can send out the voice of reason quickly and guide the public opinion when a hot or focus event happens. "Scientists and Media Face to Face" has taken to build a communication platform between scientific community and media, and during emergency it has played an important role in science popularization. The activity can rapidly spread the correct and authoritative voice of scientific community through media to guide the public opinion.

In this paper, the series of activities "Scientists and Media Face to Face" will focus on the analysis of the role during emergency science popularization, and it will brings us some new ideas.

The contents of this paper include four parts: The introduction to the series of activities "Scientists and Media Face to Face" in China; The analysis on characteristics and operational mechanism; A detailed analysis of the role during emergency science popularization through specific cases such as genetically modified (gm), the fog weather, and so on; the series of activities "Scientists and Media Face to Face" bring us some new ideas about emergency science popularization.

Keywords: Scientists and Media Face to Face, emergency, science popularization, public opinion

1 China Research Institute for Science Popularization
2 China Research Institute for Science Popularization

Introduction of the series activities "Scientists and Media Face to Face"

The series of activities "Scientists and Media Face to Face" are organized by the China Association for Science and Technology (CAST) in order that scientific community can send out the voice of reason quickly and guide the public opinion when a hot or focus event happens. This activity aims to build a platform of equality dialogue and extensive exchanges between scientists and the media, so as to improve the profound understanding of the media to the scientific connotation behind the hot issue of the society, improve the communication skills of scientists and media workers, ultimately achieve the purpose of better spreading science to the public.

This activity started from 2011, and has been successfully held 34 periods (until October 2013). Main Sponsors are Science Popularization Department and Propaganda Department of China Association for Science and Technology. Generally, the 1st organizer is the unit related to current theme (such as one society), the 2nd organizer is China Research Institute for Science Popularization, and the 3rd organizer is Chinese Society for Science and Technology Journalism. Union of Internet based Science Popularization under Internet Society of China and China Association for Science and Technology network are the cooperators. Each activity focus on one hot topic of the society to determine the appropriate theme, usually invite 2-4 authoritative experts in related fields and 30 fixed media. Through the exploration and practice nearly three years, currently "Scientists and Media Face to Face" is more and more mature from planning to form of activity, and has formed a rapid response mechanism to actively respond to the hot focus events. At the same time, the activity always seeks a breakthrough and innovation constantly so as to achieve better communication effect.

In order to determine the theme of "Scientists and Media Face to Face", we consider the following aspects: first, the national important events; second, social hot spot issues; third, the demand of the authorities. Since 2011, the choice of topic is extensively, covering the above-mentioned three kinds of needs. The topics are not only related to the forefront of technology development, food safety which the public pay more attention, flood disaster, haze weather and others hot topic, but also related to social problems, such as the same social responsibility of scientists and media, the development of science publishing, etc.

The basic form of "Scientists and Media Face to Face" is informal discussion. The experts sit on the sofa in front of the assembly room, tables and chairs lay as type V for the media. This makes the whole atmosphere more relaxed, more like a salon instead of a lecture, in order to narrow the gap between scientists and media. There are two specially invited representatives of the media during each activity to lead interaction between media reporters and experts. Activity time is usually two hours: the first hour is for experts to pertinently interpret around the theme; second hour is for scientists and media interaction. Each activity has constantly filmed, and has text & photo online coverage by the Chinese Association for Science and Technology Network, synchronous reprinted by China Digital Science and Technology Museum, China Network, and People Network.

"Scientists and Media Face to Face" operational mechanism

(1) The systematical mechanism of scientific community

In the practice of emergency response in China, the organizations that science and technology workers participate in are scattered, countermeasures and resources configure repeat also, so these limit response ability. These require strengthening the construction of emergency response of scientific and technological workers. In recent years, China Association for Science and Technology has gradually formed an organizational structure by science and technology workers. The structure has multi-layered hierarchical, wide coverage, rich resources. It is integrated with emergency research, emergency decision-making consultation and emergency service in science popularization.

(2) Experts liaison mechanism of the professional societies

Because the professional societies have the advantages of professional talents, intensive intelligence, professional and abundant research achievements, professional technology communication skill, "Scientists and Media Face to Face" mainly depend on professional societies to recommend and invite the famous experts in related field. This kind of liaison mechanism gives a solid foundation for the activity.

(3) Linkage and synergy mechanism of mainstream media

The media is an important part for "Scientists and Media Face to Face". If the mainstream media does not have positive participation, this activity will lose its sense. Therefore, the sponsors, organizers and cooperators of "Scientists and Media Face to Face" try to explore the combination between scientists and media, set up an interactive platform in time for them.

(4) Experts judgment mechanism

In order to ensure the sufficient scientific, timely, precise and feasible theme, office of the activity takes responsibility to declare the collected themes in time, then gives a preliminary examination and renders advices, finally delivers theme to steering committee. Depending different situations, steering committee determines the active theme by using collective review, communication review, communication to solicit opinions and other ways to carry out research. Through the strict and orderly process, the selected theme meets the need of emergency communication of science and technology and the needs of the public and the media for emergency technology knowledge requirement.

The role of the series of activities "Scientists and Media Face to Face" during emergency

Science popularization during emergencies is the important part of the emergency work, and the activities "Scientists and media face to face" are just one part of the emergency incident response for the first step. As one of the forms of popular science activities during emergency, the activities play an important role to clear up difficulties, disabuse doubts and correct deviations. It convey the authoritative, accurate, rational voice of scientific community, and guide public opinion. There are 11 activities aimed at emergency in total 34 activities that had been held. List as follows:

Table 1.
"Scientists and Media Face to Face" in the emergency list

No.	name of activity	Time
1	Second：Nuclear · Safety · Health	March 19,2011
2	Third： Recognizing nuclear pollution	April 20,2011
3	Fifth： Food Safety and Food Additives	June 23,2011
4	Sixth: Recognizing super bacteria	July 5,2011
5	Seventh：Analysis of extreme weather	August 29,2011
6	Seventeenth: Scientific response to floods	August 6, 2012
7	Twenty-three: Talking about haze	January 15, 2013
8	Twenty-four: Science face flu	April 9, 2013
9	Twenty-ninth: The development of transgenic technology in future 10 第三十期：如何理解航空安全 2013年7月24日	July 11,2013
10	Thirtieth: How to understand the aviation safety	July 24, 2013
11	Thirty-first:: Facing weather disasters of medium and small cities and towns	August 8, 2013

(1) Quickly convey the correct and authoritative information

In recent years, because of the rapid development of mass media, if an emergency happened, media reports will be overwhelming and make people dazzling. At the same time, in the era of self-media, everyone has the right to speak and can publish the information. So the accuracy and authority of the information will no doubt be grim challenge. According to the specific circumstances of emergency, "Scientists and Media Face to Face" build up a platform between scientists and media for communication in time, and invite the authoritative experts in related fields to convey the correct and rational voice.

To Fukushima Daiichi nuclear accident in Japan, we held two activities of "Scientists and Media Face to Face"— "Second：Nuclear · Safety · Health" and "Third: Recognizing nuclear pollution"; To extreme weather, we held three activities —"Analysis of extreme weather", "Scientific response to floods" and "Talking about haze"; To H7N9, we held the activity of "Science face flu". From about ten days in initial to the first 24 hours later, the time of emergency respond is more and more quickly. It achieved the goal that we convey the correct and authoritative information to the media and public. The activities have become very important during emergency.

(2) Guiding the public opinion.

In emergency management, public opinion manifested in two aspects: First is public awareness and attitudes for emergencies itself; the second is the public understanding and attitudes to government emergency management actions. These two aspects of public opinion play an important role to the successful response to emergencies and the stability of the whole society. When incident happened, the public often want to maximize access to relevant information, such as the nature of the incident, the scale, the harm degree, development trend, and what should be taken preventive measures and so on. If the public cannot obtain information from legitimate and authoritative channels, they will turn to find other sources of information. This will provides survival and expansion space for the rumors and false hearsay. "Scientists and Media Face to Face" actively guide the public opinion in the emergency response through conveying the correct, authoritative, rational voice of the scientific community and the most powerful, influential media organizations. For example, "Food Safety and Food Additives" and "The development of transgenic technology in future", etc, these activities effectively guided the public opinion.

(3) Psychosocial treatment

The occurrence of unexpected events will not only cause loss of life and property, but also bring great impact, on people's psychological, cause serious psychological problem. At the individual level, it is mainly manifested as fear, helplessness, hopelessness, depression, mania, and other negative emotions; At the social level, it is mainly manifested as, group anxiety, panic, distrust of government, non-cooperation and other emotions and behavior. Sometimes the psychological impact caused by emergencies will last a long time. In this sense, eliminating the psychological effects caused by unexpected events play a decisive role in emergency management. "Scientists and Media Face to Face" has gradually become a platform. The eleven activities for emergencies have played a good role to psychological treatment. Such as after nuclear radiation in Japan, Chinese people are extremely sensitive to radiation pollution, and then the event of grabbing salt occurred. In view of this situation, we held two activities "Scientists and Media Face to Face", and the experts gave the comprehensive and detailed explanation the nuclear radiation problem from shallow to deep, corrected the wrong ideas, made the public tension relief.

Enlightenment to emergency work

(1) Popular science activities can play a greater role in science popularization during emergency

We can draw a conclusion through total 34 activities: popular science activities can play a greater role in science popularization during emergency. Especially in combination with the mass media to spread, we can get a good spread of results. For emergencies, just finding an appropriate popular science activity, we will achieve the expected results for science popularization.

(2) Making full use of the mass media for emergency science popularization

The importance of the media today is self-evident. The media can act as authoritative, scientific information publishing platform, by allowing the public to keep abreast of relevant information to address public concerns, and enhance public confidence. Currently, the use of the media is still not sufficient, particularly the new media and media dissemination, which need to be strengthened.

(3) Building a platform for interaction between scientists and the media

Exchanges of scientists and media have always existed big problem. Scientists are generally reluctant to deal directly with the media; the media also don't know how to use the shortest time to find the most authoritative experts. When faced with an emergency, in order to build a good communication platform more quickly between the scientists and the media, by a third party, we should establish an appropriate linkage platform, forming a linkage mechanism to carry out more effectively in emergencies science popularization.

An Analysis on Key Nodes in Micro-blog Communication and its Influential Factors: An Empirical Study on Popular Micro-blog Posts in 30 Key Network Public Opinion Cases

Xie, Yungeng
Sun Qian
Rong Ting

Abstract

Key nodes in Micro-blog communication play a critical role in determining the amount and trend of information. This article focused on 7584 micro-blog posts of 30 key network public opinion cases between 2011 and 2012, and revealed the 2158 key nodes and the corresponding influential factors. Results showed that there were different key nodes with varying impact. The top 9 popular key node IDs (0.41%) were commented and forwarded up to the 20% amount of total number of comments and forwards. The result indicated that the influence of key nodes differ in various factors; the speed of intervention into public events, the types of key nodes and characteristics of posts significantly influence the number of comments and forwards. In contrast, numbers of fans have little impact on the amount of micro-blog's comments and forwards. It is suggested that we should pay close attention to the role of key nodes of micro-blog communication, especially the core key nodes and guide the public opinion by the key nodes.

Keywords: Weibo; key nodes; guiding public opinion

Introduction

After three years' development, Weibo has become a very important platform for China users to get information and express their emotion.[1] As a new communicational carrier, Weibo occupy an important position in many social hot issues because of its multi-channel, fragmentation and viral distribution advantages. It has become another public opinion cradle and fermentation tank after traditional media, online forum and blog. Weibo has a characteristic of complex network. The Key nodes means the individual in a system and the Bian means the way of online information communication, represents the correlation between these individuals, the number of the number of edges is the degree of Vital nodes[2]. Intuitively, the greater of the node's degree , means that the more important it is.

In Weibo Communication, the existence of high-impact user node and their forwarding is the key factor of causing information communication and a larger ongoing proliferation, plays a very important role on the development of public opinion.

However, the relevant research about Weibo key nodes at home and abroad are mainly conducted from the perspective of information engineering disciplines, with reference to social network analysis method to analyze the key nodes, lack of a large sample empirical quantitative research aiming at the role and influencing factors of key nodes in the communication process of public events. In this paper, we take the top 30 public events from 2011 to 2012 as subject, find out the forwarding number of 30 public events over 500 times as research samples, trying to find out the key nodes of public events communication, and analyze the influence factors and communication rules of the Weibo and the formation mechanism of public opinion.

Findings

By analyzing the 2,158 Weibo IDs producing 7,584 hot issues as the key nodes of Weibo communication, we found that the characteristics of these nodes are as follows:

1) The Weibo IDs mainly are real-name registers.

From the key nodes authentication, 62.9% are real-names in these Weibo IDs, with 37.1% of them lacking the V symbol. Therefore, the majority of Weibo key nodes are authenticated individuals and organizations.

2) The majority of these Weibo IDs are from Beijing, Shanghai and Guangzhou.

Beijing, Shanghai and Guangzhou, gathered various influential institutions and elites, the organizations and individuals of key nodes are mostly from these three cities. Beijing accounted for up to 38.8%, followed by Guangzhou and Shanghai, accounting for 13.6% and 9.8%.

3) The fans number of these Weibo ID is mostly between 10,000 to 1,000,000. It has a negative correlation with the number of followings, a positive correlation with the number of posts.

The higher the fans number of the key nodes, the fewer people that follow; there is an asymmetry between microblogging nodes. In addition, the more the fans, the more motivation they have for posting, and the more they post.

4) Celebrities' Weibo are on the top of all.

From the type of the Weibo ID key nodes, 28% of them are celebrities, on the top of all the types. Ordinary users are in the second place, accounting for 21%. Grassroots and media practitioners take a considerable proportion, accounting for 14% and 13% respectively; governmental Weibo accounted for 1%, which was the least of all.

5) The content of the posts are mainly statements.

The type of facts objective statement take the highest proportion (41.8%), followed by analytical type accounting for 5.8%, emotional posts accounting for 12.8%, and mobilization type accounted for 8.6%, question type accounted for 2.8%, witty or humor type accounted for 7.9% . Among them, the largest proportion is original post, which accounts for up to 90.8%;the post coupled with pictures, audio or video clips, accounted for up to 64.2%.

The number of comments represent the influence of Weibo key nodes, the forward comments of key nodes are distributed very unevenly, with the top 9 key nodes Weibo IDs (accounting for 0.42% in all Weibo IDs) publishing 1,330 posts and occupying 20% of total forward comments, as a result they could be called the core key nodes. Among the 9 core key nodes of Weibo IDs, three of them are

1 Xinhua Net: Statistical report on Internet development in China, Jan, 15, 2013. http://news.xinhuanet.com/tech/2013-01/15/c_124233840.htm

2 HE Nan, LI Deyi,GAN Wenyan, ZHU Xi,Mining Vital Nodes in Complex Net works, Computer Science,2007 Vol 34,No 12,p1-p5.

network media official Weibos, two of them are celebrity Weibos, two of them are traditional media official ones, one of them is governmental one, and one is grassroot Weibo.
When we analyzed the data by linear regression, we found that:

1) The forwarding and comments number are quite different in different identities of key nodes.

The forwarding and comments of governmental Weibo are 20,559 more than other kind of Weibo ID type on average. One of the reasons is that the governmental Weibo is the government's representative, and they released the news on behalf of the government; On the other hand, in the event of big public event, the government control many important data and messages, the message is often an important resource for the public to get information. The Weibo ID is the parties of the case, 7,310 forwarding and comments more than other types on average. The reason is that these people post many exclusive news and get attention from network users. In the event of major public opinion events, the celebrities participated and forwarded very actively, not only play the role of information diffusion, but also take the role of supplementary of media reports, supplier of opinion, rescue operations and implementers of the appeal, with strong agenda setting capability.

2) The number of fans of key nodes has a weak influence on the number of forwarding and comments.

Each time the number of fans increasing 10,000, the number of forwarding and commenting would increase 5. The higher of the number of Weibo fans, the received comments of key nodes would be higher accordingly.

3) Different content of discourse strategies has a significant influence on the forwarding and comments.

Different discourse strategies taken by key nodes, the average number of forwarding and commenting has a significant difference. The number of forwarding and commenting of objective statement is 1,567 fewer than the other types on average. Discourse strategies using emotional catharsis been forwarded are 1,597 more than other types on average. These kinds of discourse strategies are usually full of intense emotional factors, gratitude, indignation, support, oppose or denounce, etc. In the event of important public events it is much more highly sensational in particular, easy to agitate the netizen, and get their sympathy. Therefore, this kind of discourse strategies could get more forwards and comments. The number of forwards and comments of appealing discourse strategy is 4,544 more than the other types on average. Appealing discourse strategy, that is , by using appeal, mobilization, call for the netizen to participate in salvation, voting, action, etc, to arise the enthusiasm of netizen, enhance the communication between the key nodes of netizen can obtain more forwards and comments.

4) There is a significant impact of posts with pictures or audio, video to the number of forwards and comments.

The number of forwards and comments of posts with pictures is 1,356 more than posts with text on average. Coming into a picture reading time, the posts with picture, audio or video could arise the reader's interests, give the recipient a deep impression and increase the attractiveness and richness of the posts.

5) There is an important influence of original posts on the number of forwards and comments.

The number of forwards and comments of original posts is 4,003 more than forwarded ones on average. The original posts attract the netizens because of its freshness and distinctiveness. No matter it is short or long, the original post stands out and came to netizen's attention rapidly.

6) There is a significant influence of the key nodes' intervention rate to public events.

Billions of posts emerged on the Weibo platform, the public opinion hot issues changed frequently and quickly. Therefore, the sooner the key nodes involved in the public events, the more easily they get the netizen's attention.

Conclusion and discussion

Italian economist Pareto investigated the statistical distribution of personal income in 19th century, and found that the income of a few people is much higher than that of average people. As a result he put forward the famous “80–20 rule”, stated that 80% of the land in Italy was owned by 20% of the population, which is also called *“Pareto principle”,* and can be as shown as $P(X \geq k) = k^{-\alpha}$ $P(X \geq k) = k^{-\alpha}$ ($\alpha > 0 \alpha > 0$) that reveals a strong inequality.[3]

In the complex network theory, with power-law distribution network is called scale-free network, its typical feature is that the majority of nodes connected to a few nodes instead of connected to a lot of nodes. There is a significant difference of different key nodes to the number of forwards and comments. The top 305 key nodes Weibo ID (accounting for 14.13%) have 5047 posts, accounting for 80% of all the forwards and comments. The other 1,853 key nodes(accounting for 85.75%), accounted for 20% forwards and comments of all. This embodies the characteristics of power-law distribution: severe skewed to the right, dragging tail, with bell-shaped curve of the Poisson distribution were significantly different.

In the Weibo communication, discover and capitalize on these key nodes is very important to guide public opinion. Therefore, we put forward four suggestions:

1) Pay high attention to the key nodes of Weibo communication and guide the public opinion.

The essence of Weibo spreading is key node communication, different informational communication role is different.In guiding the Weibo public opinion, we should pay high attention to the spread of key nodes, focusing on monitoring and analyzing the core key nodes, to strengthen the communication and management of key nodes, to seize the commanding heights of the spread of Weibo, in order to guide public opinion and resolve conflicts timely.

2) Strengthen government Weibo construction and enhance the ability of government guiding the public opinion.

The government Weibo is the representative of government, but there is few government Weibo to become the key nodes, especially the came to the core of key nodes. Only “Safe Beijing ” in the key nodes list so far. Therefore, all levels of government should expand the size and number of government Weibo, to enhance the operation and management level of government Weibo, so that it can become a key node and with a strong capability to guide public opinion.

3) To develop the role of the mainstream media ,to be the guardian of society and supervisors.

The mainstream media should keep up with the trend of the times and actively stationed on Weibo platform, occupying the highest point of public opinion, in order to enhance the influence. The mainstream media should intervene the public events as soon as possible and release the news. To guide the Weibo public opinion timely and play the social guardian and guide the public opinion function.

4) To strengthen the communication with the people involved in the public events and resolve conflicts.

The people involved in the public events either are the witnesses or direct participants of the event, and they can deliver the most efficient, real, exclusive news. We should pay full attention to the participant’s Weibos, and enhance the communication and guidance with the participants, and If necessary, resolve the conflicts and misunderstandings and ensure the public opinion develop in a correct direction.

3 HU Haibo, WANG Lin, A brief history of power law distributions, Physics, 2005, No 12,p890.

Analysis on the Chinese Public's International Awareness

Yang Binyan [1]

Abstract

Chinese public's international awareness is undergoing investigation and monitored as an important topic by the National Public Opinion Poll Laboratory (POP Research), Chinese Academy of Social Sciences. This paper provides a detailed analysis of the Chinese public's international awareness, based on the surveys conducted in May and July 2013 by POP Research. The author shows special analysis of four Asian countries.

Keywords: public opinion poll; public's international awareness; China; Chinese international views

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Purposes and Significance of Study

Since globalization and internationalization have become the basic characteristics of the modern era, the Asia-Pacific economic development has been the most important and notable element in the world. China has been considered as a powerful new balance to the multiplicity of world economic and social development and change. At the beginning of 2013, China's new leaders began active and frequent diplomatic activities, and China's overall diplomacy and the full range of foreign policy has been gradually forming.

In addition, ethnic nationalist tensions in the Asia-Pacific region are complicating Beijing's relationships with adjacent states. Under the changing circumstance, understanding and study of the Chinese public's international consciousness have become very meaningful and valuable, especially knowing how they see the major world powers and their neighboring countries.

Method and Question of Study

National Public Opinion Poll Laboratory (POP Research) of the Chinese Academy of Social Sciences has investigated the Chinese people's international consciousness for several years. We run national public opinion surveys quarterly, and the public's international consciousness is a routine part of this survey.

The scope of the survey covers 20 Chinese cities, and each survey takes more than 2000 valid samples from the city population aged 18 or above. Quota sampling and probability sampling are combined, and we try to study an index calculation method of the national public opinion poll.

As for the international awareness part, the following areas were covered:

1) Good impression to 10 foreign countries
2) How to evaluate bilateral relationship
3) Importance to China's economy
4) Described specific images of foreign countries
5) Expectation to bilateral relationship and global power

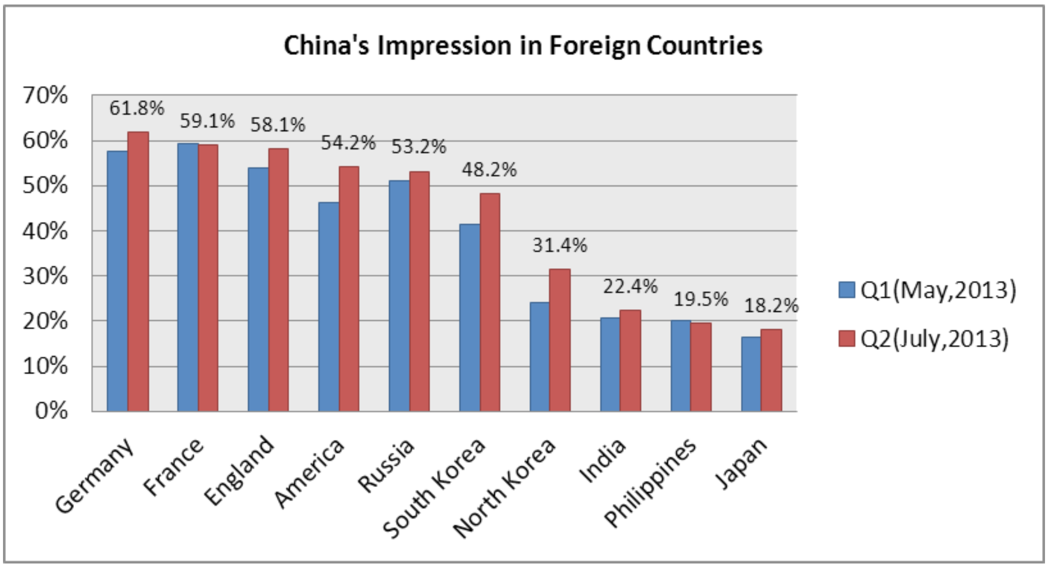
Based on the two surveys conducted in May and July by POP Research, this paper provides a detailed analysis of the Chinese public's international awareness.

Results

China's impression to foreign countries

The investigation data shows that Chinese attitudes toward foreign countries are very diffierent. By comparison, China gives better impressions to the European and American countries than to their Asian neighbors. In the 10 countries listed in the questionnaire, Germany (59.7%), France (59.2%) and England (56%) got the highest degree of good impression.

In Asian countries, Japan, India, and the Philippines got a lower ratio in good impression than South Korea and North Korea; the three countries have territorial disputes with China, which may be a factor. South Korea gained the most favorable impression of the five Asian countries, and Japan the lowest.



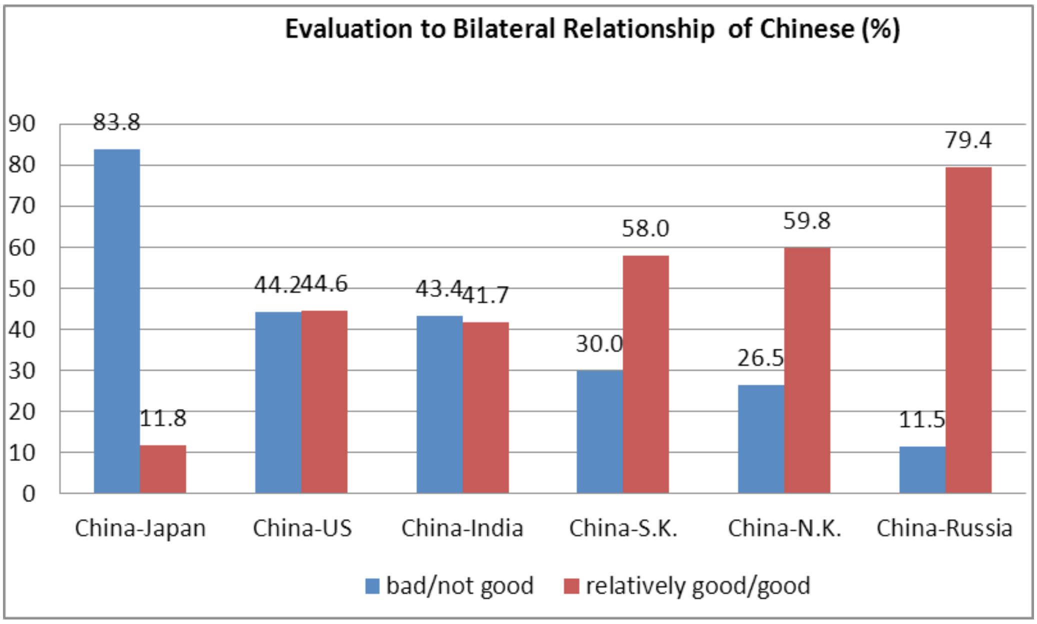
By POP Research Q1&Q2

Figure 1. China's Impression in Foreign Countries

Bilateral relationship evaluation

China-Russia diplomatic relations are considered the best in 10 countries. More than 80 percent of the interviewees thought that the China-Russia relations are at "relatively good" or "good" state. This is higher than that of other countries. People are more likely to consider that S.K. (58.0%) and N.K. (59.8%) have a good relationship with China.

But the survey in May shows that people's attitude to the bilateral relationship in China-Japan, China-India, and China-US are prone to be negative, especially to Japan; 83.8 percent surveyed say China-Japan relations are at "not good" or "bad" state.

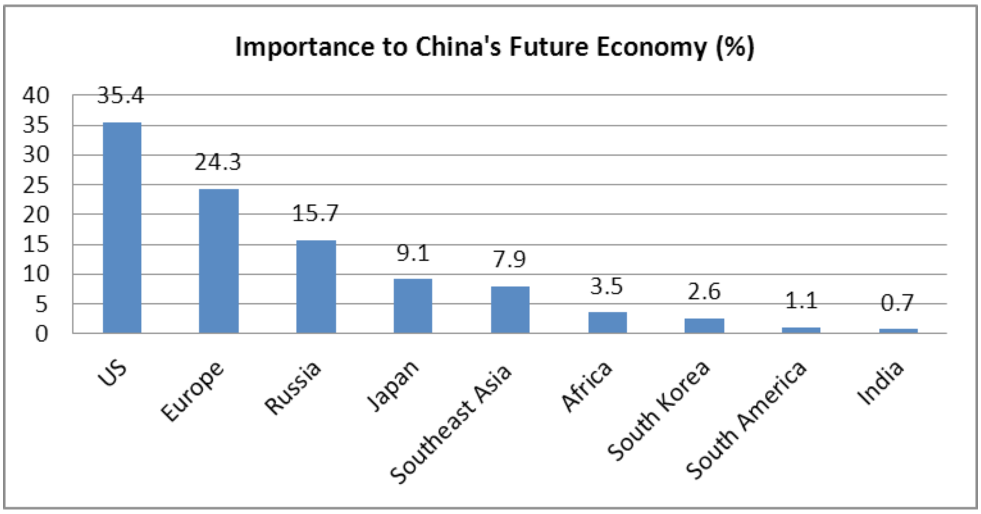


By POP Research Q1

Figure 2. Evaluation to Bilateral Relationship of Chinese (%)

Importance to China's economy

The Chinese generally believe that the United States of America is the most important country to China's economy development; 35.4 percent surveyed chose the U.S. first, then Europe and Russia, with Japan ranked fourth, at just less than 10 percent.



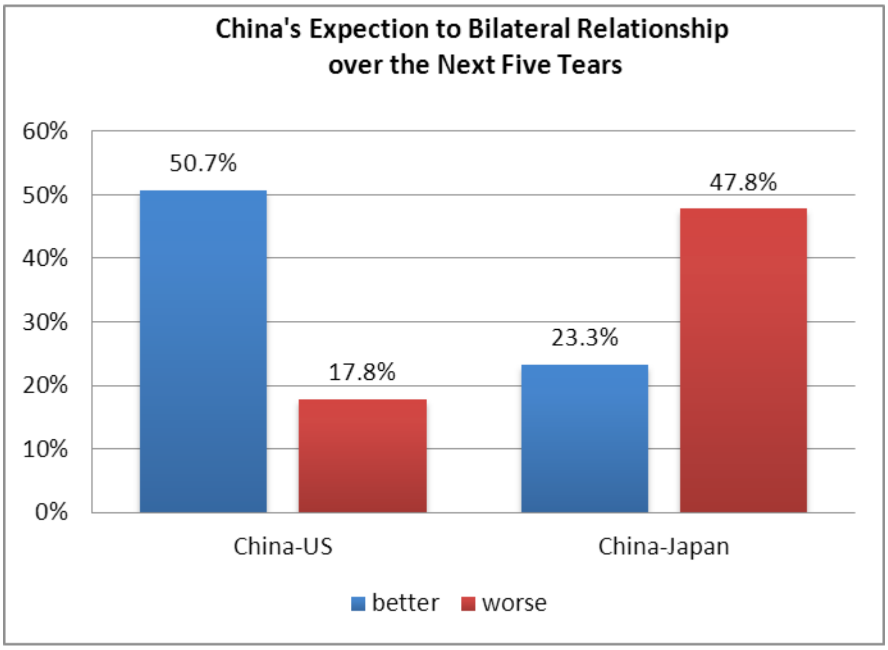
By POP Research Q1

Figure 3. Importance to China's Future Economy (%)

Expectation of bilateral relationship and global power

Chinese people are optimistic about the future of China-U.S. relations, but are pessimistic for China-Japan relations. Based on the survey in July, more than half (50.7%) of the Chinese interviewees believed that China-U.S. relations are headed in the right direction and will be better over the next five years; unfortunately, almost half of the interviewees (47.8%) believed that China-Japan relations will become worse.

At the same time, as for the global power and the impact on China's future economic development, the United States is regarded as more important and powerful, whereas Japan is weak and powerless.



By POP Research Q2

Figure 4. China's Expection to Bilateral Relationship over the Next Five Tears

Described foreign images specific

1. Comparing the impressions of four countries

Four countries were selected for the detailed report: the United States, Japan, South Korea, and North Korea.

The May surveys show that the America is well ahead in several aspects, such as "developed economy," "powerful military," "global superpower," and "democratic." More than 80 percent surveyed agree that America is a "developed country." Also, "powerful military" (55.8%) and "global superpower" (36.2%) are chief images of America.

For Japan, the most prominent image is the "advanced technology" (42.1%), ranking the first place in four countries. The second is the "developed country" (47.1%), second only to the U.S.

As for South Korea, "developed country" (30.3%) and "democratic" (30.2%) are listed first of ten specific described impressions.

The top two impressions for North Korea were "developing country" (46.2%) and "authoritarian" (44.8%), but the evaluation on democracy, freedom, peace, and other aspects are generally low (less than 2%).

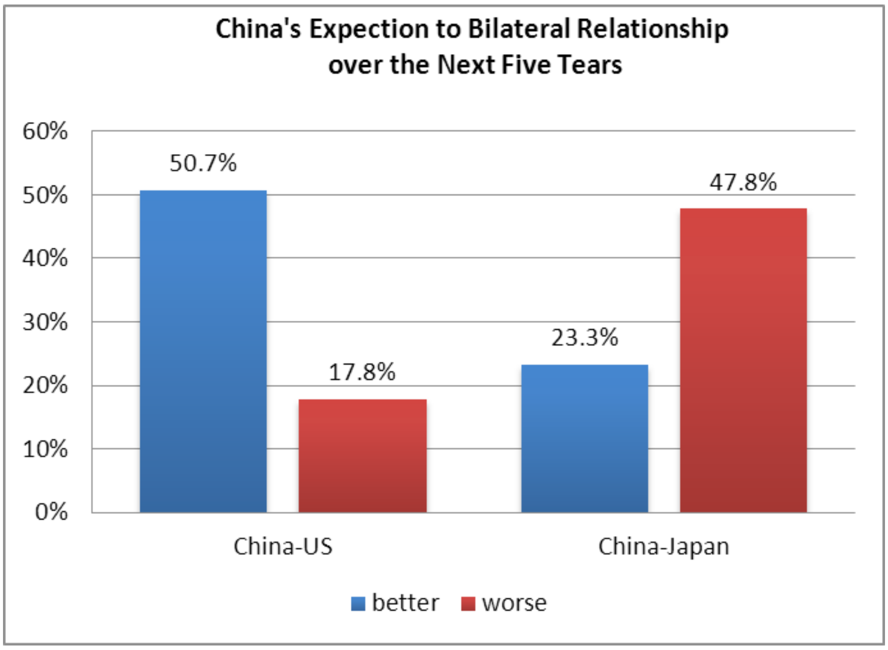
Table 1.
Chinese Specific Description of the Four Countries' Images

Chinese Specific Description of the Four Countries' Images				
	America	Japan	South Korea	North Korea
Developed Country	*80.1%*	*47.1%*	*30.3%*	1.5%
Democratic	35.0%	19.5%	*30.2%*	13.3%
Authoritarian	14.0%	*25.0%*	14.8%	*44.8%*
Developing Country	7.4%	11.6%	*25.5%*	*46.2%*
Powerful Military	*55.8%*	15.5%	7.8%	8.8%
Freedom and Equality	15.3%	12.1%	22.8%	14.4%
Peaceful	*5.9%*	*7.0%*	18.9%	13.0%
Global Power	*36.2%*	14.9%	10.9%	7.9%
Advanced Technology	19.6%	*42.1%*	21.4%	4.4%
Rich in Culture and History	2.1%	9.5%	14.4%	12.9%

By POP Research Q1

2. The impression of the South Korea

For the overall impression of South Korea, "economic developed country" and "democracy" are the two most important impressions, with a rate of 30 percent.

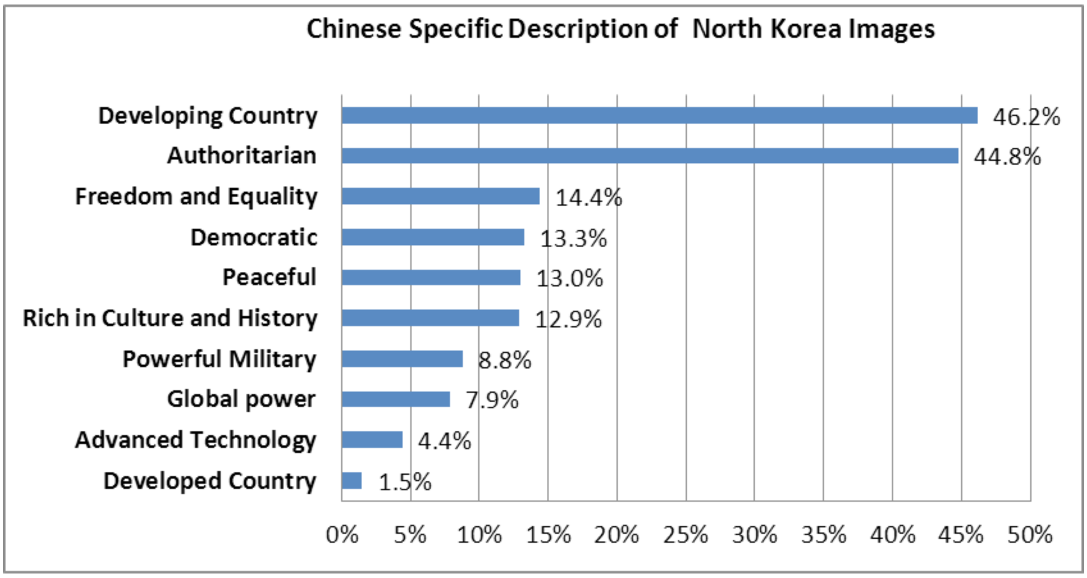


By POP Research Q1

Figure 5. Chinese Specific Description of South Korea Images

3. The impression of the North Korea

In the overall impression of North Korea, the most prominent are "developing" and "tyranny." These two ratios are far beyond the other options, with a rate of 45 percent.

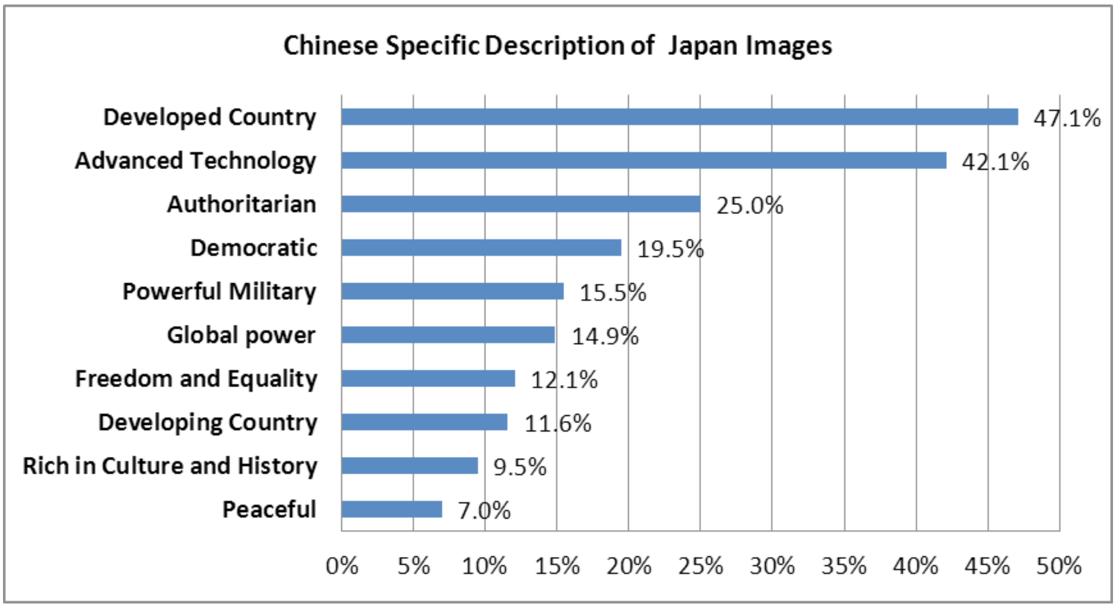


By POP Research Q1

Figure 6. Chinese Specific Description of North Korea Images

4. The impression of Japan

For the overall impression of the Japan, the most prominent are “developed economy” and “advanced technology.” These two selections both have a rate of more than 40 percent. The third impression is that Japan is an authoritarian state, but the military power is ranked fifth. Just 7 percent of interviewees think Japan is a peaceful country.



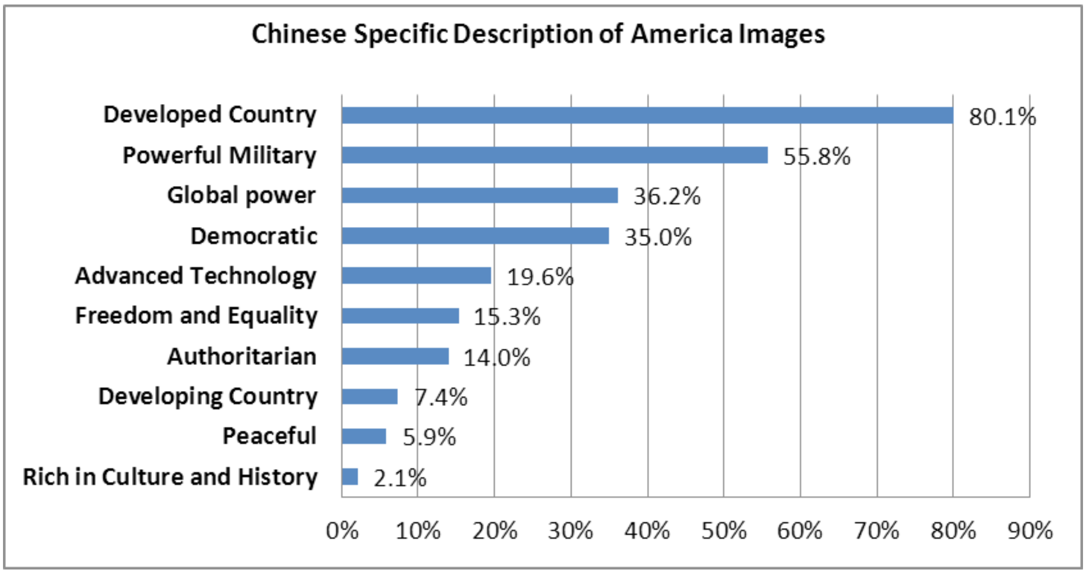
By POP Research Q1

Figure 7. Chinese Specific Description of Japan Images

5. The impression of America

For the overall impression of the United States, the most prominent is “developed country,” with more than 80 percent of the reached proportion. The second is “military power,” with a rate of more than 55 percent. “Global power” (36.2%) and “democratic” (35%) were rated evenly, while “rich in culture and history” was the lowest (2.1%).

In addition, 70 percent of the interviewees feel that the United States is a military threat, which is consistent with the people’s impression of the United States as a “military power.”



By POP Research Q1

Figure 8. Chinese Specific Description of America Images

Survey on Gaming Addiction among Thai Early Adolescents

Siritorn Yingrengreung [1]
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Pornpong Sakdapat [3]

Abstract

Background: Playing online or computer games can become a pathological problem that affects health and well-being of adolescents. Addicted teens spent much time playing games, lose interest in other activity, and have poor school performance.

Objectives: This study investigated gaming addiction and compared level of addiction among teenagers lived in Bangkok metropolitan and Saraburi province.

Methods: Participants were 577 early teenagers from Bangkok metropolitan (334 students) and Saraburi province (243 students), ages 11-16. They completed the 21-item Game Addiction Scale in July - August 2013. Data was analyzed using descriptive statistics, ANOVA, and t-test independent.

Results: Findings revealed that majority of teens (19.8% - 72%) spent time played game through internet, computer, video or mobile more than 1 - 3 hours/day. Sixty-five percent reported having problem about time management. Overall teens were found to have low levels of game addiction (mean = 11.35, SD = 12.04). Proportion of teenagers reported of having severe game addiction was 15%. Comparison according to living area between Bangkok and Saraburi revealed higher mean score of game addiction in Bangkok teens (mean = 12.82, SD = 12.95) than suburban Saraburi teens (mean = 9.46, SD = 10.46) at $p < .001$. Male teenagers had significant higher mean scores of game addiction than female teenagers 14.49 (SD = 13.27) vs 7.77 (SD = 8.92), $p < .001$.

Conclusion: This study reflects current problem that Thai teenagers are facing in today's society.

Keywords: Game addiction, early adolescents, Thai teenagers

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Introduction

Advanced communication and technology in today's society c become problematic that affects health and well-being of adolescents. The 2001 national survey on computer use among Thai children and adolescents found 3 million reported of playing computer games and about 1.4 million played in their spare time (National Statistic Office, 2002). Youths spent 4 days a week on playing game with an average of 4.5 hours at a time. The expense on playing computer game was approximate 1,114 baht (40 USD) per month (Hongsguansri, Phawasuthipaisit, & Reungkarnchaserte, 2005). Playing computer games or online games can become pathological problem or addicted in children and adolescents (Freeman, 2008). Pathological gaming or addiction behavior characterized as spent much time playing games or twice of normal, lose interest in other activity, and less involve to others people (Gentile, 2009; Griffiths & Hunt, 1998). Mechanism of game addiction similar to chemical addiction that secrete of neurotransmitter (dopamine) in the brain, which leads to happiness and enjoyment while playing computer games (Woelfling, Thalemann, & Grusser, 2008). This effect is the incentive to play computer game repeatedly until eventually causes gaming addiction through online or computer. In addition, computer or online gaming also allows children to have fun, feeling of success in challenge, propelling their aggression, and gain acceptance from friends (Johansson & Gotestam, 2005).

Researchers in this area established diagnostic criteria for pathological video/online game addiction by the presence of three or more of the 7 facets during the last 12 months according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV): *salience*, engaged in playing or spend significant time thinking about game that dominates the person's life either cognitive or behavior; *tolerance*, a greater amount of time playing game is needed to achieve the same high; *withdrawal* symptoms as negative emotions when unable to play game; *loss of control,* playing game longer than planned; *continue play despite* experiencing physical and psychological harm, *attempt cut down,* but unsuccessful of reducing playing game, and *reduced involvement,* in social, and recreation activities. This established criteria was used to define gamer that higher involved with playing game and game addiction was also similar to the pathological gambling in the DSM-IV criteria (Gentile, 2009; Woelfling, Thalemann, & Grusser, 2008). The game addiction exhibited at least half of the symptoms resulted in damage in several area of life.

Game addiction created negative consequences on physical, mental, intellectual, and behaviors. Youths who played fighting game were absorbed aggressive thoughts that cause rebellious behaviors. Children and teens were found more aggressive and involved with fighting and argument easier. (Harris Polls #10, 2013). Focusing only on spending time played online games results in poor nutrition, less physical activity, lack of sleep, low school performance, social disengagement with others, and gambling as well (Gentile, 2009).

Previous study indicated psychosocial risk factors effect on playing computer and online game among children and adolescent. For psychological risk factors found were attention deficit disorder (Kim, 2009), stress (Kwon, 2005; Kwon, Yingrengreung, Cho, 2013), anxiety and depress (Freeman, 2008) whereas the social factors were peer relation (Kang & Son, 2007), family income and family relations (Srivanarungsun, 2004). These factors made children escaped from reality and turned their attention to spend more time on playing computer and video games.

Objectives

This study investigate game playing behaviors, gaming addiction among Thai teens, compared different levels of addiction among male and female teens and between living area in Bangkok metropolitan and Saraburi province.

Method

This cross-sectional survey was conducted in August 2013. The institutional review board was approved from Boromarajonani College of Nursing Saraburi in 2013. Participants were informed of their right and confidential in protecting personal information. Two self-reported questionnaires were administered to students at their school.

Samples

Participants were convenient sample of 7th – 9th graders studied in Bangkok and Saraburi province. The total of 577 male (50.3%) and female (45.1%) students comprised of 334 (54.1% males vs 45.9% females) students enrolled in Bangkok and 243 (51.4% males vs 48.5% females) in Saraburi provinces. Age ranged from 11-17 years (mean = 13.79, SD = 1.15).

Measures

Three self-reported questionnaires were used:

1. Personal data that asked age, gender, and family income.
2. Game playing behaviors comprised of questions that asked about average time spent on playing games through internet/computer/video/mobile, and problems related to money, time management, and parents from playing game.
3. The Thai version of game addiction that translated from the 21-item Korean game addiction scale for children & adolescents developed by Kim et al (2009). Students were asked to rate their opinion on 4 point scale (never - almost always) about their problem and difficulty on playing computer or online game during the past year. The addiction level was categorized as low (score < 20), moderate (score = 21-42), and severe (score = 43-63). The scale has good reliability with Cronbach's alpha of .93 (Cho, 2013), .97 (Kwon et al, 2013), and .96 in this study.

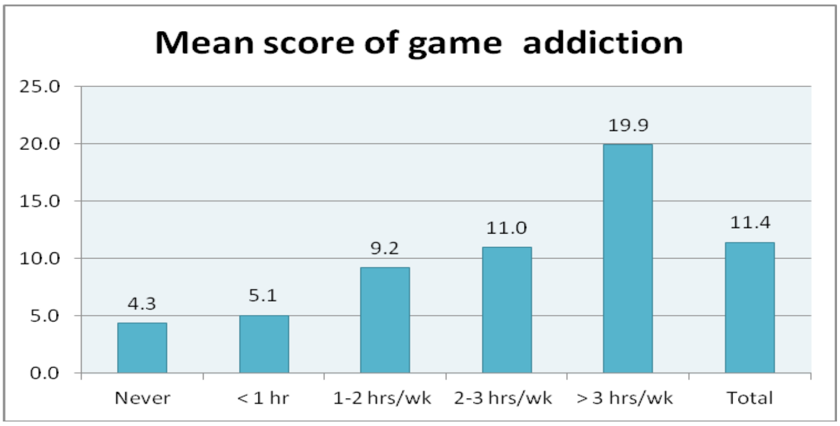
Data analysis

Descriptive statistics was used to analyze amount of time spent on playing games and problems related to money, time, and parents. Analysis of variance (ANOVA) was used to compare different of game addiction among students from different economic and related problems. The independent t-test was used to compare level of game addiction between different gender and living area.

Results

Time spent on playing games

Findings revealed proportion of teens spent time playing game through internet, computer, video or mobile > 3 hours/week was 28.6%, 2-3 hour/week was 15.8%, 1-2 hours/week was 25.2%, < 1 hour was 17.5%, and never was 9%. Figure 1 showed mean scores of



Game addiction
≤ 20 = low
21-42 = moderate
≥ 43 = severe

Figure 1. Mean score of game addiction according to time spent playing game game addiction according to time spent on playing video/computer/online games. There were low level of game addiction (mean < 20) across groups. The higest mean score of game addiction was 19.9 and found among teens who spent time > 3 hours per week on playing game whereas the lowest mean score of 4.3 was found among students who never play game.

Problems related to playing computer or online game

Proportion of participants who never have financial problem related to computer or online game was 64.1%, had financial problem occasionally was 27.6%, often had financial problem was 5.6%, and had financial problem almost every day was 2.6% as showed in Figure 2.

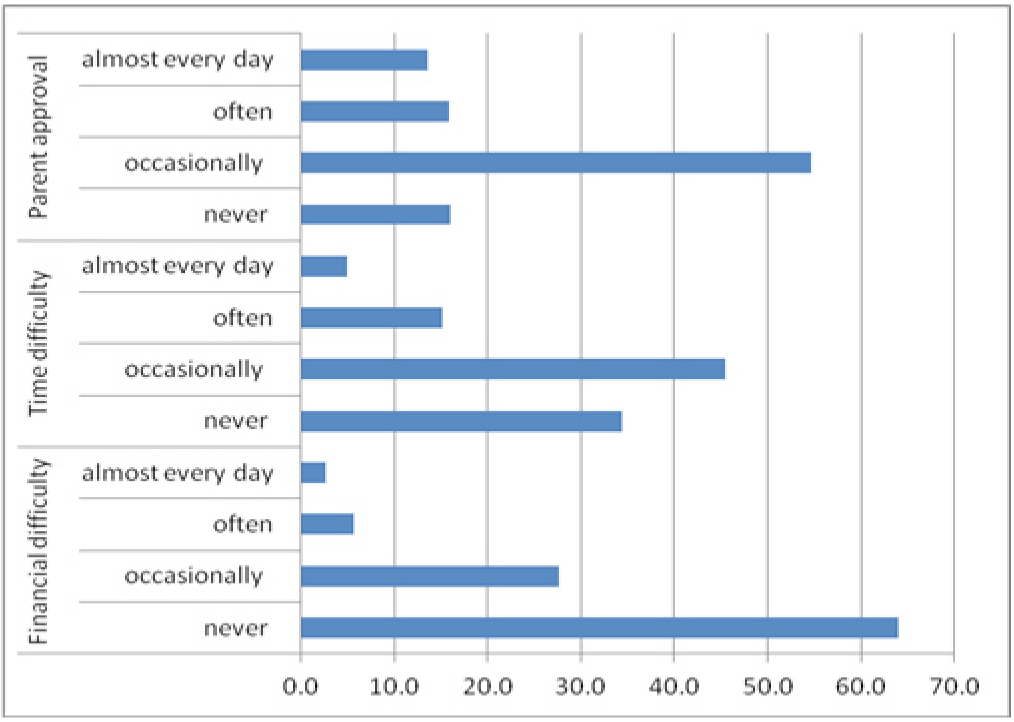


Figure 2. Problems related to money, time, and parental management.

For problem with time management, 45.5% reported of had problem occasionally, 15.2% often had problem, and 4.9% had problem every day. For problem with parents allowing to play game, 16% reported that their parents was never allow, 54.7% was allowed occasionally.

Game addiction

Overall students had low levels of game addiction with mean score of 11.35 (SD = 12.04). Comparison of game addiction according to living area between Bangkok and Saraburi revealed significant higher mean score of game addiction among Bangkok teens (mean = 12.82, SD = 12.95) than suburban Saraburi teens (mean = 9.46, SD = 10.46) at p <.001. Male teenagers had significant higher mean scores of game addiction than female teenagers 14.49 (SD = 13.27) vs 7.77 (SD = 8.92), t = 6.92 (df = 490), p <.01).

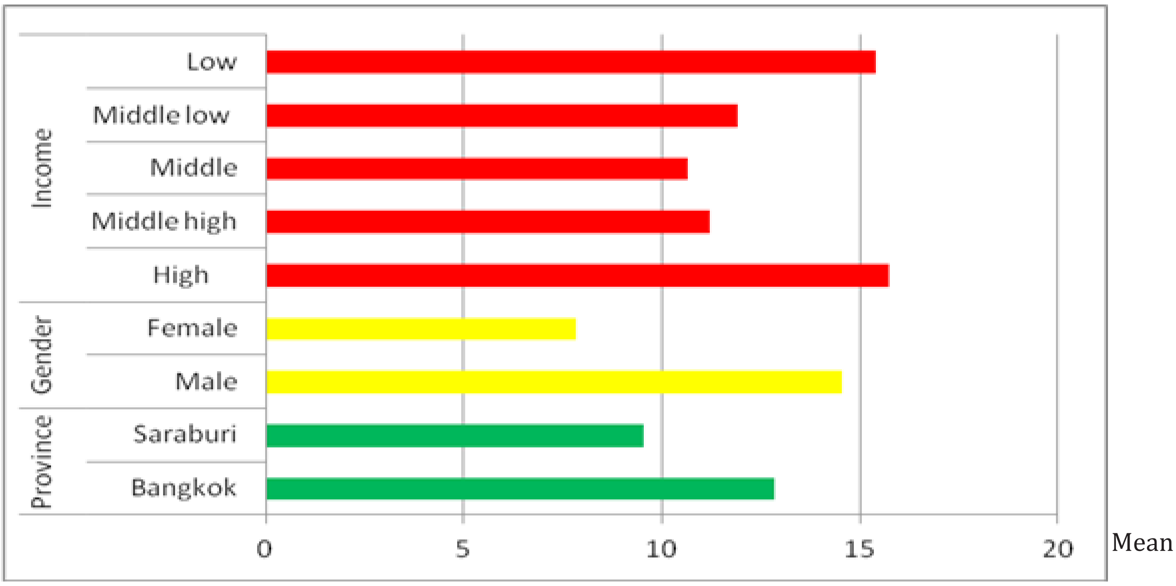


Figure 3. Mean addiction scores according to province, gender, and family income low (< 20), moderate (21-42), and severe (43-63)

Majority (82%) of overall sample was categorized as low level of game addiction (total score < 20), 15.1% had moderate game addiction (total score 21-42), and 2.9% had severe game addiction (total score 43-63) as showed in Figure 4. The comparison of game addiction according to living location found that youths lived in Bangkok had higher proportion of students with moderate to severe game addiction (19% and 3.5%) than Saraburi province (9.9% and 2.1%), respectively. Proportion of male students with moderate to severe addicted on internet or computer games were 19.4% and 5% compared to 10.1% and 0.4% of female students. Gender different had moderate effect on addiction to computer and internet game, Cohen's d = .59.

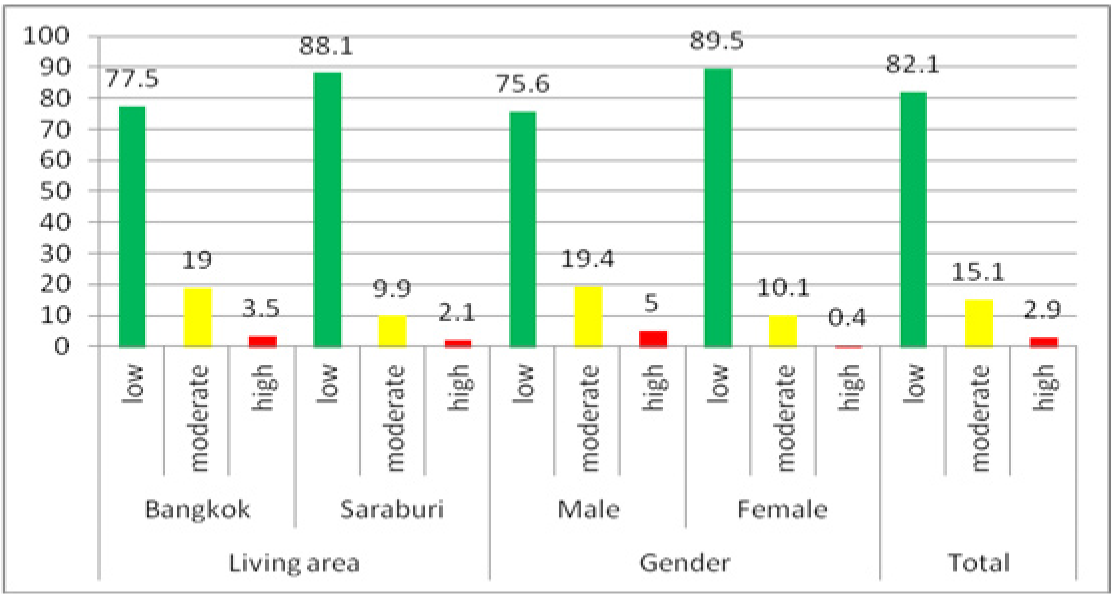


Figure 4. Proportions of game addiction by area and gender
low (< 20), moderate (21-42), severe (43-63)

Discussion

This study reflects current situation of game addiction among Thai teens in today's advanced technology era. Only 9% of teens reported never have experience of playing computer or online game. Teens living in Bangkok metropolitan who involved in computer or online game playing were found to have significant higher mean score of game addiction (mean = 12.82, SD = 12.95) than teens in Saraburi province (mean = 9.46, SD = 10.46), $p < .001$. Teens that spent more time on playing computer or online game were found to have higher score of game addiction than teens who played less. Overall mean score of game addiction in this study was 11.35 (SD = 12.04) indicated low level of game addiction among Thai teens.

Proportion of teenagers with internet/video game addiction in Thailand was 15.1% for moderate and 2.9% for severe addiction. Findings similar to internet/computer game addiction among youths in others countries including 20% in British (Griffiths & Hunt, 1998), 11.9% in Germany (Grusser et al, 2007), 8.5% in USA (Gentile, 2009), and 30% severe internet game addiction in Korea (Kwon, 2005).

Gender difference significantly effects internet/computer game addiction among teens. In this study, male teens had significant higher mean score of game addiction (mean = 14.49, SD = 13.27) than female teens (mean = 7.77, SD = 8.92), t= 6.92 (df = 1, 490), $p <.01$. Proportion of moderate to severe addicted on internet or computer games of male students were 19.4% and 5% compared to 10.1% and 0.4% of female students. Previous study conducted in Thailand reported higher proportion of computer games addiction of 23.1% among Thai male adolescents at Mueang district, Si Sa Ket province. Whereas addiction to internet or computer games among US male was 11.9% and female was 2.9% which lower than the reports of Thai male teenagers (Gentile, 2009).

The moderate effect of gender on teens addicted to computer/internet game found in this study (Cohen's d = .59) was similar to the reports from the US and Korea. The study conducted in national sample of 1,178 US teens indicated moderate effect with Cohen's $d = .73$ (Gentile, 2009) with mean scores comparison among male and female of 2.8 (SD = 2.2) vs 1.3 (SD = 1.7). The study conducted in Korea (Kwon et al, 2013) found Cohen's $d = .63$ with higher mean score of male (mean =11.47 (SD = 11.74) than female (mean = 11, SD = 8.61).

Conclusion

This study reflects current problem that Thai teenagers are facing in today's society. Advanced technology creates modern health problem in children and youths due to gaming addiction through online, mobile phone, and computer use. Family and psychosocial factors are major barriers of game addiction among children and youths. There is a need for building strong relationships within the family, good discipline and responsibility. Moreover, parents should be knowledgeable about selection of games that benefit children and ability to talk to their children in order to understand and accept family rule and reasons for playing any computer or online games.

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Malaysia's 13th General Election: Political Communication Battle and Public Agenda in the Social Media

Hasmah Zanuddin [1]
Tham Jen Sern [2]

Abstract

In a mediated democracy, politicians strive hard to determine what is on the front page of the newspapers, or the leading item in the news. While media are said to set the public agenda, the use of Social Networking Sites (SNS) or online social media such as Facebook, Twitter, Blogs, YouTube, etc. is growing tremendously in 21st century politics. Everyone has a voice and can broadcast it to the world. We hear about the old maxim of *media do not tell people what to think but what to think about*. Under this theory or approach, a key function of political communication is to make public think about an issue in a way that is favorable to the sender of the message. In a democracy, political communication is seen as crucial for the building of a society where the state and its people feel they are connected. Thus, this is a study on how social media (i.e., Facebook, blogs and YouTube) used in the domain of Malaysian politics during the 13th General Election campaigning period in order to set their agenda to form public opinion. The study found that Facebook was the most popular social media tool that actively engaged by political parties during the 13th General Election campaign period. Apart from that, issues pertaining to the election were significantly highlighted by the political parties in the social media especially Facebook. However, other important issues such as economy, crime and education were not sufficiently highlighted during the election campaign periods that were also important to the people. This indicates that the political parties influence the public on what to think about using the social media.

Keywords: Political communication, 13th General Election, social media, Social Networking Sites (SNS), agenda setting, public opinion

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Introduction

Living in a globalized world spearheaded by technological advancement and innovations, media has long been instrumental in imparting various kinds of information to the populace. Technological changes in information delivery systems such as the Internet are capable of circulating messages instantly, and it continues to impact many aspects of our society indeed. Along this thought, people are insidiously using media, especially new media as their critical purveyor of information. This phenomenon, in fact, is totally different from the media use of decades ago (Syed Arabi Idid and Chang, 2012).

In recent years, new web technologies, the social media, have opened up possibilities for rich, online human-to-human interaction unprecedented in the history of Internet communication. The emergence of the social networking sites, such as Facebook, affordable information dissemination and retrieval has been made possible, which is the key to the better functioning of the public sphere (Bentivegna, 2002). In fact, even before the 13th General Election, several road demonstrations had been carried out calling for a "clean" election to be held in the 13th General Election through social media especially Facebook to the general public. The fact that average citizens' opportunities to observe their government in action have mushroomed with the advent of cable television channels and the birth of social media especially has lured scholars into these areas. Although most people do not yet take full advantage of the massive amounts of political information available via the Internet, the trend of striving for more information pertaining to the government's policy development grows insidiously.

Agenda setting remains the predominant theoretical approach to analyzing the impact of media messages on audiences. Agenda setting theorists contend that people's views of political events and about the characteristics of political actors and political situations are information made available by the mass media to which they are exposed directly, or through reports from other sources (McCombs, Shaw, and Weaver, 1997; Soroka, 2003; Graber and Smith, 2005). In addition, even major news sources are using social media more and more to provide fast coverage that reaches millions of users.

In a democracy, political communication is seen as crucial for the building of a society where the state and its people feel they are connected (Lilleker, 2006). Consequently, this is a study on how social media (i.e., Facebook, blogs and YouTube) used in the domain of Malaysian politics during the 13th General Election campaigning period in order to set their agenda to form public opinion. It focused on the issues that have been discussed during the campaigning period via examined social media tools.

The Media, Public Opinion, and Political Communication

The role of political communication in agenda setting has been discussed by many scholars. Agenda setting, intrinsically, describes the process by which the news media shows the public what is important by giving more salience to certain events and issues over others (Dunaway, Branton, and Abrajano, 2010). According to agenda setting theory, the public perceives issues that receive most media coverage to be those of greatest importance (McCombs and Shaw, 1972). This implies that heightened coverage of election issues during the campaigning period will increase public perception and formation of public opinion with respect to who should the voters elect to sustain a continuous development of Malaysia.

The idea of getting an issue to become salient and visible among readers often hinges on the role played by proponents. These proponents might be a news reporter or politician who keens to gain public attention on a particular issue over others. Agendas that are carried out by issue proponents are then being transferred from the media to the public, thereafter public opinion formation takes place. In other words, public opinion emerges from the interactions of organizational communicators, the media, and the public. These organizational communicators play as an issue proponent whom can be the organizational leaders, spokespersons, and public relations practitioners (Leuven and Slater, 2009). Price and Roberts (1987) employ the term *political* actors.

As aforementioned, public opinion formation process is instigated by the saliency of an agenda in the mass media (McCombs and Shaw, 1972). Organizational communicators will "dress up" the agenda, framed in a certain way, on the media agenda. Therefore, when the public is exposed to the highlighted agenda through the mass media, it allows a social environmental problem/issue to be transformed into a public issue. A public issue is widely discussed within a community, and as group aggregate, consensus and dissent form around certain dimension of the issue. After that, the formation of public opinion will then be influential to policy making. Hence, in short, successful media advocacy essentially makes a specific issue salient among the public, thereafter turning it into public discussion, and ultimately gaining attention from the policy makers. The details of the public opinion is illustrated in the Figure.

Theoretically, the concept of agenda-setting is contributed to by scholars Maxwell McCombs and Donald Shaw in their research article which published in 1972. Their study indicated that there is relationship when news media (newspapers, news magazines, and network television) positions stories and attribution of importance of those issues reviewed by their audiences. Althaus and Tewksbury (2002) have well-described that media do much more than solely inform or report an issue or event to its audiences. It attests that the agenda set by the news media is significantly giving an impact on the belief of audience about the importance issues and topics which are reported and presented by the press.

Often, we hear about the old adage of *media do not tell people what to think, but what to think about*. Under this theory or approach, a key function of political communication is to make the public think about an issue in a way that is favourable to the sender of the message. As the initial announcements reach the public, the political actor's goal is to get the issue on the media agenda, thereon assessing how the issue is perceived. In other words, every organization, either elective political officials or non-elective organizations, that desires to sway the public politically must attempt to control what ideas become dominant in the public sphere.

Why is political communication important? The history of political organizations, be it political parties, political interest groups or non-governmental organization is part of political communication. Depending on the technological possibilities, political organizations have communicated with citizen in various ways during different stages of their development (Farrell and Webb, 2000; Gibson and Rommele, 2001) and during election (Syamsul Anuar Ismail and Hasmah Zanuddin, 2008). The earliest forms of campaigning were characterized by face-to-face communication among party members and voters, and mass event rallies organized by political organizations were dominant. During the second or "modern" era of political communication, there is a switch to the more impersonal channel, that is, the mass media, especially television. In the past decade, a third mode of campaign has emerged in post-industrial democracies which are using new media technologies or the social media.

Political communication, as aforementioned, is largely mediated communication, transmitted through the print, electronic, or even social media. In political communication, the media, to some extent, should be viewed as important political actors. The media is not only transmitting the messages of political institutions to the public, but they also transform them through various processes of news-making and interpretation (McNair, 1999). The media contribute to policy discussion and resolution apart from setting public agendas or providing platforms for politicians to make their views known to the public.

Given the tremendous growth of social media, in particular Twitter and Facebook, social media thereby represents the ideal vehicle and information base to gauge public opinion on policies and political positions as well as build community support for candidates running for public offices (Zeng et al., 2010). In the realm of public relations, publicity, promotion, and advertising are as tools of public relations campaign, go into high gear during the political seasons (Steinberg, 1958). More and more, in recent years especially the 2008 General Election, political parties have looked to the advantages of new media in the political sphere in which are able to help mold a favorable climate of opinion among constituents.

In the electoral process, both political parties and candidates require the attention of both the electronic and print media to portray their image and promote policy proposals for the attention and consideration of voters. Reach and visibility of an issue are pivotal to influence the public agenda. It is postulated that the more and frequent of an issue visible in the communicating text, the more the readers will form "pictures in their heads" about issues. Therefore, the power of media should not be underestimated. In a paper presented by Tham and Hasmah Zanuddin (2011), they revealed that in the interest to reach our messages to the ground, media planners need to assure the agenda to be repeated as frequent as possible through the right media channels. Figure 3.2 shows the media agenda is the first stage in agenda setting where an issue will get on the media agenda after reviewed by gatekeepers. The figure has actually been simplified for easy understanding.

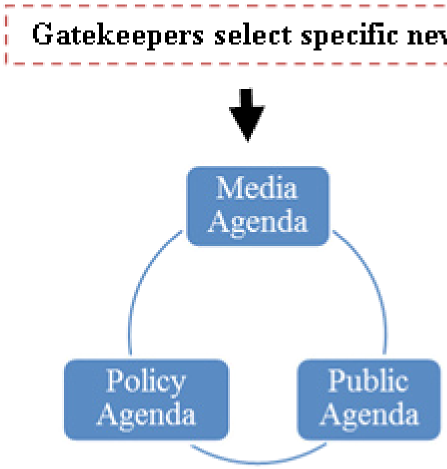

Figure 1. Stages in the agenda setting process. Adopted and modified from Singhal and Rogers, 2003, p.82.

Political communication and the social media

Political communication messages transmit to the audience via the social media generate a new form of information sharing. Thus, it benefits both politicians and the constituencies. An element of trustworthiness of the news postings in Malaysia allows for the socio-political blogs to be popular during General Election in 2008 (Syamsul Anuar Ismail and Hasmah Zanuddin, 2008). We are entering a new phase in the global response, and we live in a society that depends on information and communication to keep moving in the right direction and do our daily activities like work, entertainment, healthcare, education, personal relationships, traveling and anything else that we have to do. In a democracy, the overwhelming growth of media in society has left unpredictable impact to the people at large and has served as a critical vehicle to be used by politicians and policy makers to highlight issues to the attention of the general public, either through or directly to the media (Syed Arabi Idid and Chang, 2012). Socio-political blogs allowed a new political space during the 12th General Election (Syamsul Anuar Ismail and Hasmah Zanuddin, 2008).

Within modern democracies, the public elect a person, and usually their party, to run the country for defined period of time (i.e., an elected person will run a country or state for five years). The question is, during major moments in politics especially during election, how do politicians communicate with constituents, and how do people turn for news about the choice of who to elect? Obviously, the answer to that question is through media channels. In order that the people can make the choice of who to elect, each competitor keeps communicating and interacting with them effectively by using various kind of communication medium. Increasingly, one of the medium that mostly or popular used by politicians nowadays is social media. It is argued that from the perspective of politicians and political parties, it is imperative to actively join social media based political communication, in particular during election campaigns (Stieglitz, Brockmann, and Linh, 2012). Already, the U.S. politicians are said to have a leading role in this regard, and Malaysia is now on her track (Wattal et al., 2010).

3.1 Political communication

In the field of communication, Laswell's maxim is well-known: *who says what to whom in what channel with what effect* (Gamble and Gamble, 1989; Agee, Ault, and Emery, 1997). Under the classical model of communication, there are four components that play a significant role to attain the objective of communication, in which are *Source*, *Message*, *Channel (media)*, and *Receiver.* The classical communication model (Figure 2) provides a one-way communication process. A range of messages are distributed, using all available media from reliable sources, thereon reaching to an audience. In the political communication, the source and message may come from political institutions or politicians, while receiver may be politicians, journalists, member of interest groups, or private, unorganized citizens and, of course, the voters (Lilleker, 2006; Graber and Smith, 2005).

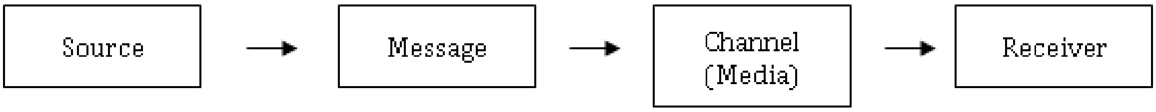

Figure 2. The classical model of communication.

Political communication shares a common basis of the communication process too. As defined by Graber and Smith (2005), political communication comprises the construction, sending, receiving, and processing of messages that potentially have a significant direct or indirect impact on politics. In accordance with the proliferation growth of communication in social media, political communication acts as an activator; feedback from the general public is of paramount. In other words, political communication must allow feedback from society and encourage participation in political discussions and debates. Political communication is as old as political activity; it was a feature of ancient Greece and the Roman Empire as well as across diverse political system in the modern age (Lilleker, 2006). In this modern age, the traditional structure of mass communication in the political context has changed (Chadwick, 2006; Gil De Zúñiga et al., 2012). Based on the advent of Web 2.0 technologies and associated social media, in particular, a traditional political communication (liner, top-down process from leaders to people) as shown in the Figure 3 has been improved.

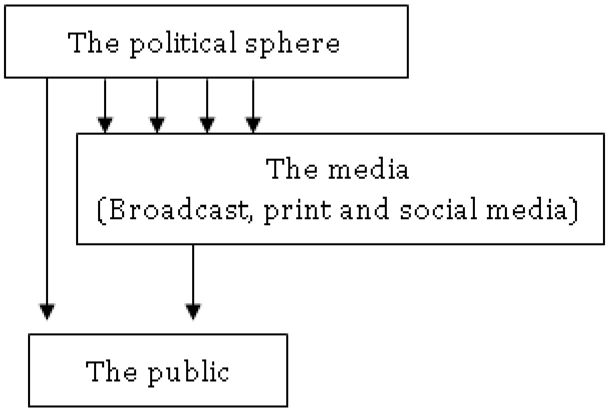

Figure 3. A traditional view of political communication. Adapted and modified from Lilleker (2006), p. 5.

Consequently, within modern democracies, when one or another individual or party is elected in an election, it is inevitable that they continue to communicate with them. Therefore, more groups are heard compared to only the three fundamental actors in the former's model (Figure 4). At the same time, two-way communication also exists in the modern level of political communication model. In this model, the public sphere (political actors) is no longer only transforming the messages to the ground, but also communicating with other non-elective organizations. This two-way communication between elective political officials and non-elective organizations has made the communication vary and both are competing with one another to obtain the communication objective. The emphasis on reach and visibility by the social media allows cheap and fast great coverage (Tham and Hasmah Zanuddin, 2011).

In the essence of political communication, the influenced category of the domain activity is that of public relations—media and information management tactics designed to ensure that a party receives maximum favorable publicity, and the minimum of negative. That is what we refer to as the process of mediation. Before a message passes through to the public, it would be caught by the media and then channeled out once again. At this level, the top-down process from leaders to people no longer exists. More communication is to go from the bottom society into the political sphere via selected media channels. In addition, the public or voters are not content with the simple act of voting anymore. Instead, they are becoming more active to participate in politics discussions.

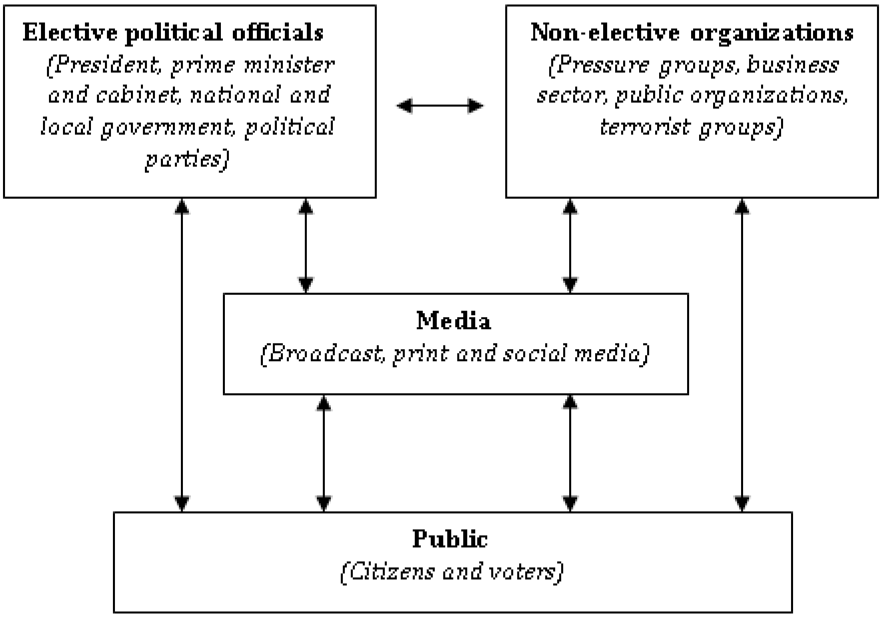

Figure 4. The levels of political communication. Adapted and modified from Lilleker (2006), p.6.

3.2 Social media

The terms social media is used to describe "as a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and allow the creation and exchange of user-generated content" (Kaplen and Haelein, 2010; Mayfield, 2008; Newson et al., 2009). In other words, it is a platform that facilitates information sharing and participation from users of the media in order to create and distribute the content. Social media encompasses different forms, for instance social networks—Facebook, Twitter, MySpace, etc., Internet forums, weblogs, social blogs, mirco blogging, wikis, podcasts, pictures, and video, to name a few (Kaplen and Haelein, 2010; Weber, 2009; Steenkamp and Hyde-Clarke, 2012). Why is social media so popular among this generation and even in the political realm? Social media is particularly fascinating because it differs from traditional media such as newspapers and television in three ways: (1) it is able to facilitate two-way interaction with a large number of people at the same time; (2) actors are connected with each other directly, without gatekeepers that control contents; and (3) popular social media websites are relatively inexpensive or free to join, making the cost of usage very low by modern standards.

Due to the fact that social media makes it easy for people to evaluate their counterparts' actions, it is, therefore, beneficial as an electoral strategy. Politicians use social media to communicate with their audience and to call them to protest, or to vote (see Figure 1). Even during the election campaign weeks, the social networks and blogs become an effective campaigning platform for politicians to promote and manifest their dialogue with the community that they represent or inundate a certain image about themselves (Momoc, 2013). In addition, politicians often use social media as a platform to attack each other especially during the election campaign weeks.

Figure 5. Examples of Facebook pages to protest and vote.

Research Methodology

Quantitative content analysis was used to examine how social media was used by Malaysian politicians and what are the issues that have been discussed in the social media during the 13th General Election campaigning period. The quantitative content analysis, as explained by Holsti (1969); Berelson (1971); Riffe, Lacy, and Frederick (2005), embraces three fundamental elements: *objective, systematic* and *quantitative.* Against the background, it indicates that to analyze a message or context, formulated rules and procedures are of paramount importance to avoid bias while categorizing or measuring the messages. On the other hand, *systematic* concerns consistent and systematic rules and steps in analyzing the contexts. Further, *quantitative* concerns the units of analysis in the study, such as the subject of the study, the measurement and instrument of the study.

4.1 Sampling procedures

Six political parties namely the *United Malays National Organization* (UMNO), the *Malaysian Chinese Association* (MCA), the *Malaysian Indian Congress* (MIC), the *People's Justice Party* (PKR), the *Democratic Action Party Malaysia* (DAP), and the *Pan-Malaysian Islamic Party* (PAS) were selected to examine their respective Facebook account, blog and YouTube channel. The unit of analysis in this study was the postings published on their respective Facebook page.

4.2 Coding

Coding book was generated for this empirical research and served as a dictionary which defined each and every word that might be put properly into the particular categories. Prior to starting the content analysis, coders are required to study a coding book methodically generated for the use of this empirical research. The coders were instructed to consistently refer to the coding book for technical clarification and guidance throughout the coding process.

Each posting from either Facebook, blogs or YouTube of the political institutions was coded on the following variables: (1) Types of medium (i.e., Facebook, Blog, or YouTube); (2) Date; (3) Time of access (i.e., 9am, 2pm, or 8pm); (4) Title of the posting; (5) Translation, if any; (6) Languages (i.e., BM, BI, BC, Tamil, or Mixed); (7) Main issue; (8) Category; (9) Source of posting; (10) Representation; (11) Posting slant; (12) Main target; (13) Number of LIKES; (14) Number of SHARES; (15) Number of COMMENTS; (16) Number of LINKS; (17) Types of the LINKS; (18) Total of paragraph; (19) Issue related to Lahad Datu, Sabah (i.e., Yes or No); and (20) Issue related to Islam.

A standardized codebook and codesheets were designed to categorize the variables. A Master Coding of the main issues was used to define issues based on the postings published in the party's Facebook page.

4.3 Time period

This study used 18 coders to code six parties' Facebook accounts (three Members of Parliaments [MP] and three Members of States), blogs, and YouTube clips from April 20, 2013 to May 6, 2013. These periods of time were divided into two categories: T1 indicates April 20-28, 2013, while T2 represents April 29 – May 6, 2013. Coders examined the social media tools of a party from three different time slots, which are 9am, 2pm, and 8pm.

4.4 Data Analysis

All the variables and categories would be recorded into the statistical software of Predictive Analytics Soft Ware (formerly known as SPSS) 20.0 thereon the data would be analyzed by using the same statistical software. Descriptive analysis would be carried out to further answer the research objectives.

Results

In this research, a total of 3685 samples from the parties' Facebook accounts, blogs and YouTube were identified during the campaigning period from April 20th – May 6th, 2013 (Table 1). Of that entire amount, Facebook secured the highest number of posts from the six political parties during the election campaigning period with 2955 posts compared to blog (382 posts) and YouTube (348 posts).

In terms of the party per se, DAP has 24.5 percent of the Facebook posts during the election campaigning period, followed by PKR (22.6 percent) and UMNO (20.9 percent). Looking at the usage of blog, UMNO led the highest one with 57.9 percent over the others. Apart from the Facebook and blog usage, PKR secured highest number of usages in YouTube (40.2 percent), followed by UMNO (26.4 percent) and DAP (24.7 percent). Both MCA and MIC contributed least number of usages on the three social media during the election campaigning period.

Table 1.
The usage of social media during 2013 campaigning period

Party	**Social media**			**Whole Sample**
	Facebook	Blog	YouTube	
UMNO	617 (20.9%)	221 (57.9%)	92 (26.4%)	930 (25.2%)
DAP	723 (24.5%)	64 (16.8%)	86 (24.7%)	873 (23.7%)
MCA	253 (8.6%)	0 (0%)	2 (0.6%)	255 (6.9%)
MIC	111 (3.8%)	10 (2.6%)	6 (1.7%)	127 (3.4%)
PKR	667 (22.6%)	69 (18.1%)	140 (40.2%)	876 (23.7%)
PAS	584 (19.8%)	18 (4.7%)	22 (6.3%)	624 (16.9%)
Total	**2955 (100%)**	**382 (100%)**	**348 (100%)**	**3685 (100%)**

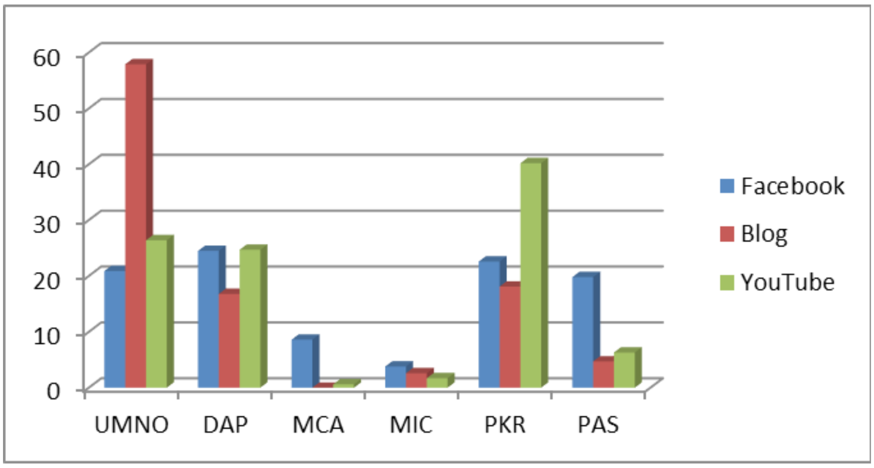

Figure 6. The usage of social media used among the political parties during the campaigning period.

Table 2 below shows the use of social media according to time frame by the six political parties during the election campaigning period. The researchers compartmentalized the election campaigning period into two time frames, T1 and T2. Based on the results, all six parties contributed almost equally during the two different time frames in terms of using social media as their election campaign tool. In details, UMNO contributed 5.7 percent more on T2 compared to T1 (22.3 percent). The reason may be due to the party trying to underpin some important issues and gain more voters' support before the polling day. Unlike the DAP, they tried to give more emphasis on the first week of election campaign in which they contributed 4.9 percent more on T1 compared to T2 (21.2 percent). The 13th General Election, which is expected to be the fiercest in Malaysia's political history in that a change in government may happen for the first time in 56 years. Before the polling day, Malaysians are starting to be instilled with the ideology from the opposition parties on "changing to win the future." Hence, that is why DAP might try to instill the sense of "change" in the very beginning of the election campaigning period.

Table 2.
The use of social media according to time frame

Party	Time Fame T1 (April 20th – 28th)	T2 (April 29th – May 6th)	Whole sample
UMNO	395 (22.3%)	535 (28.0%)	930 (25.2%)
DAP	465 (26.2%)	408 (21.3%)	873 (23.7%)
MCA	134 (7.6%)	121 (6.3%)	255 (6.9%)
MIC	67 (3.8%)	60 (3.1%)	127 (3.4%)
PKR	397 (22.4%)	479 (25.0%)	876 (23.7%)
PAS	314 (17.7%)	310 (16.2%)	624 (16.9%)
Total	**1772 (100%)**	**1913 (100%)**	**3685 (100%)**

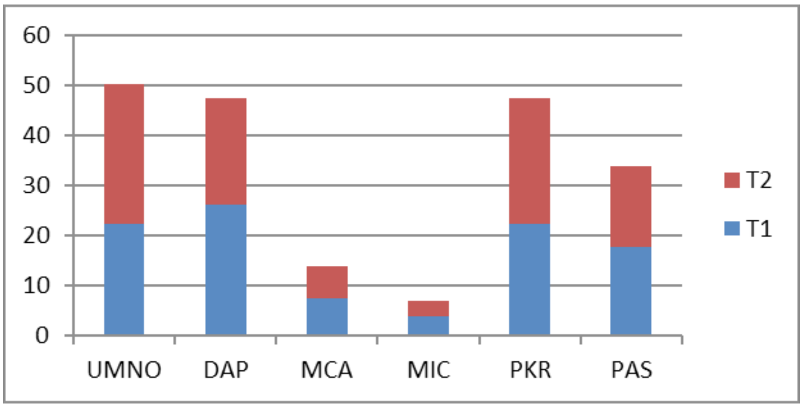

Figure 7. The use of social media according to time frame.
T1 = April 20th – 28th; T2 = April 29th – May 6th.

Table 3 below analyzed the use of social media according to time component by the six political parties. It can be explicitly seen from the table that, again, most of the political parties' social media accounts posted equally of their relevant election campaign messages throughout the three different time components, in which 8pm was the highest time component that politicians posted their messages in the social media with 1464 posts. In respect of the party, UMNO posted more information on election at 8pm (30.7 percent) during the election campaigning period compared to others. MIC was the party which posted the least amount of messages on election throughout the three time components with only 3.4 percent as a whole. Eight pm was leading the highest number of posts during the campaigning period by the six political parties maybe due to most of the white-collar workers and blue-collar workers being back at home, so they have much time to visit the social media to update the latest information pertaining to the 13th general election by the respective political parties.

Table 3.
The use of social media according to time component

Party	Time Component			Whole sample
	9am	2pm	8pm	
UMNO	273 (22.7%)	208 (20.4%)	449 (30.7%)	930 (25.2%)
DAP	259 (21.6%)	248 (24.3%)	366 (25%)	873 (23.7%)
MCA	108 (9%)	56 (5.5%)	91 (6.2%)	255 (6.9%)
MIC	37 (3.1%)	42 (4.1%)	48 (3.3%)	127 (3.4%)
PKR	328 (27.3%)	266 (26.1%)	282 (19.3%)	876 (23.7%)
PAS	196 (16.3%)	200 (19.6%)	228 (15.6%)	624 (16.9%)
Total	**1201 (100%)**	**1020 (100%)**	**1464 (100%)**	**3685 (100%)**

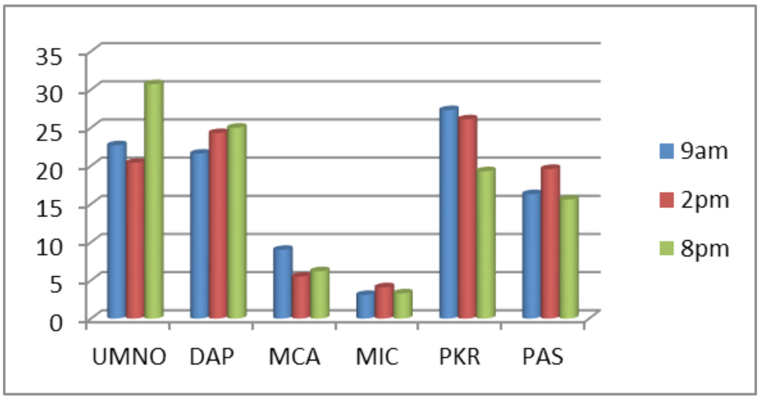

Figure 8. The use of social media according to time component

Table 4 presents the issues that were being discussed during the election campaigning period. Overall, most of the politicians focused more on issues pertaining to election (80.68%), followed by issues pertaining to politics which concern about the strengths of BN or PKR, different understanding of politics, BERSIH's rally, etc. During the two-week campaigning period, it seems to be true that most of the politicians were concerned about election issues which concern new candidates or parties, election's manifesto or campaign, party switching, credibility of a party or candidates, phantom voters, integrity of the SPR, polling date or dissolution of parliament, etc.

In terms of the party in posting the issues in their respective social media tools, again, issues related to election such as, abovementioned, the credibility of the party or candidates, phantom voters, polling date to name a few turned out to be the prominent issue among the politicians. In details, UMNO published more issues on election (772) in the social media followed by PKR (736) and DAP (671). Issues pertaining to health problems and foreigners were least to be covered or addressed by politicians during the campaigning period.

Table 4.
The issues according to the political parties

Issues	Political Parties						Whole sample
	UMNO	DAP	MCA	MIC	PKR	PAS	
Economy	2 (0.2)	0 (0)	1 (0.4)	5 (3.9)	4 (0.5)	5 (0.8)	17 (0.5)
Education	5 (0.5)	3 (0.3)	1 (0.4)	9 (7.1)	1 (0.1)	1 (0.2)	20 (0.5)
Politics	65 (7.0)	53 (6.1)	6 (2.4)	4 (3.1)	23 (2.6)	96 (15.4)	247 (6.7)
Religion	22 (2.4)	6 (0.7)	1 (0.4)	1 (0.8)	9 (1.0)	28 (4.5)	67 (1.8)
Social	1 (0.1)	0 (0)	0 (0)	11 (8.7)	0 (0)	2 (0.3)	14 (0.4)
Crime	4 (0.4)	11 (1.3)	4 (1.6)	0 (0)	10 (1.1)	6 (1.0)	35 (1.0)
Environment/Natural Disaster	0 (0)	1 (0.1)	1 (0.4)	3 (2.4)	1 (0.1)	2 (0.3)	8 (0.2)
International Relations	1 (0.1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.03)
Unity	1 (0.1)	12 (1.4)	0 (0)	1 (0.8)	2 (0.2)	3 (0.5)	19 (0.5)
Leadership	23 (2.5)	85 (9.7)	0 (0)	0 (0)	21 (2.4)	9 (1.4)	138 (3.7)
National Security	3 (0.3)	1 (0.1)	0 (0)	0 (0)	2 (0.2)	0 (0)	6 (0.2)
Patriotism	2 (0.2)	1 (0.1)	0 (0)	0 (0)	4 (0.5)	1 (0.2)	8 (0.2)
Governance	4 (0.4)	20 (2.3)	0 (0)	0 (0)	1 (0.1)	4 (0.6)	29 (0.9)
Traffic Problems	0 (0)	5 (0.6)	0 (0)	0 (0)	1 (0.1)	1 (0.2)	7 (0.2)
Development Problems	6 (0.6)	4 (0.5)	0 (0)	3 (2.4)	7 (0.8)	2 (0.3)	22 (0.6)
Health Problems	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.2)	1 (0.03)
Foreigners	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Election	772 (83)	671 (76.9)	241 (94.5)	90 (70.9)	736 (84.0)	463 (74.2)	2973 (80.7)
Others	19 (2.0)	0 (0)	0 (0)	0 (0)	54 (6.2)	0 (0)	73 (2.0)
Total	**930 (100)**	**873 (100)**	**255 (100)**	**127 (100)**	**876 (100)**	**624 (100)**	**3685 (100)**

Note: Values in parentheses indicate percentage within the political parties.

Discussion

This study was carried out to understand the nature of how social media (i.e., Facebook, blogs and YouTube) used in the Malaysian politics during the 13th General Election campaigning period in order to set their agenda to form public opinion, and as a result what are the issues being discussed during that period of time. A quantitative content analysis was made on six political institutions' Facebook, blog and YouTube during the campaign period from April 20th to May 6th, 2013 to collect the issues that were frequently discussed in the examined social media tools and to understand the pattern of usage of social media among the politicians during the election campaign week.

The finding showed Facebook was the popular social media that was used by political parties during the campaigning period to interact with constituents. This indicates that social media, especially Facebook is widely seen to play a significant role in the Malaysian 13th General Election. The result is in line with the claim that Facebook serves as an indication of the phenomenal growth of social network sites in recent years (Kushin and Kitchener, 2009). It has been suggested that Facebook is a participatory media tool and at its most basic, it can be used to communicate with voters in the same way that traditional does. Even though previous studies showed that 38.3% of those aged 21-30 trusted blogs for reliable information (Suhaimi Sulaiman, 2008), the current result showed the least usage of blogs and YouTube by political institutions during election campaign week.

Moreover, opposition party like PKR used YouTube frequently during the election campaigning period to upload public speeches to attract people's attention. The use of YouTube might even more effective in reaching out to a wired populace than TV appearances, given that online videos can be shared and re-shared repeatedly and across geography. In addition, for those who were unable to attend the public speeches and debates, they can even watch it on YouTube. Such an approach gives an advantage to the opposition party to engage with the public more closely as video content viral well and very quickly.

When comparison was made with the use of social media according to time frame by the six political parties during the election campaigning period, all six parties contributed almost equally during the two different time frames. Specifically, UMNO used social media more during the second week of the election campaign week which is T2 (April 29th – May 6th). The reason may due to the party tried to underpin some important issues and gain more voters' support before the polling day. Unlike the DAP, they tried to give more emphasis on the first week of election campaign (April 20th – 28th). The 13th general election, which is expected to be the fiercest in Malaysia's political history in that a change in government may happen for the first time in 56 years. Before the polling day, Malaysians are starting to be instilled of the ideology from the opposition parties on "changing to win the future". Hence, that is why DAP might try to instill the sense of "change" in the very beginning of the election campaigning period.

Generally, during the election campaign weeks, issues pertaining to election (e.g., new candidates or parties, election's manifesto or campaign, party switching, etc.) were significantly highlighted by the political parties in the social media especially Facebook. However, other important issues such as economy, crime and education were not sufficiently highlighted during the election campaign periods that were also important to the people. The researchers suggested that if issues were regarded as significant in affecting the votes, then these issues ought to be addressed. Politicians should better understand what issues that the community or society are concerned about rather than just merely focusing on election issues.

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The Needs of Caregivers in Providing Care to Community-dwelling Stroke Survivors

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Abstract

This study explored the support needs of caregivers in providing care to community-dwelling stroke survivors. The 81caregivers for patients with stroke lived in Muang district, Saraburi Province were selected by multi-stage sampling method. Questionnaires were used to collect personal information, the patients' activities of daily living (Barthel ADL Index), and information concerning the needs of caregivers. Data were analyzed by using descriptive statistics. The caregivers' ages ranged from 41-50 years (24.70%) to 51- 60 years (27.20 %), primary school with income < 170 USD/month (35.80%). Most caregivers were stroke survivors' children (42.00%) and their spouses (34.60%). The majority of hours providing care per day were more than three hours (71.00%). Proportion of stroke survivors with total dependent on caregivers for all activities of daily living was 26.20% whereas 64.60% were low dependence. Findings revealed that caregivers need overall support at high level (mean = 3.20, SD = 0.45). They also need high level of supports related to spiritual (mean = 3.33, SD = 0.56), patient's health information (mean = 3.26, SD = 0.68), financial (mean = 3.25, SD = 0.71), healthcare (mean = 3.21, SD = 0.54), home management (mean = 3.14, SD = 0.63), and relaxation (mean = 3.02, SD = 0.66). This study contributed to developing health system in Saraburi province to provide health services related to discharge planning with emphasis on spiritual and patient health information along with other support needs for caregivers of community-dwelling stroke survivors.

Keywords: Support, Caregivers, Stroke Survivors

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INTRODUCTION

Stroke is the most common cause of neurological diseases and a major public health problem and the third leading cause of death that affected 176,342 people in Thailand (Ministry of Public Health, 2006). The morbidity rate rose from 152.59 per 100,000 in 2004 to 277.67 per 100,000 in 2009. Saraburi ranked first for stroke mortality rate of 36.62 per 100,000 with subsequence complication that left with paralysis. Health problems commonly occurred among stroke survivors after treatment were foot drop, hypostatic hypotension, aspirated pneumonia, urinary tract infection, muscle atrophy/weakness, bedsore, muscle and joint pain or contraction, convulsion, headaches, repetitive paralysis, and psychological issues such as depression. As a result, patients can not care for themselves but depend on their relative or caregivers for daily living (Buranaparp, 2009).

Previous study found important roles of caregivers on providing health care and rehabilitation of stroke patients (Rombough, Howse, & Bartfay, 2008). Stroke survivors often rely more on caregivers for daily living activities to meet their physical and psychological function needs. Caregivers of stroke patients have to bear with long term responsibility and experienced with various psychological and physical health problems such as back pain, shoulder pain, arm pain, neck pain, fatigue, eating less because of changing lifestyle and stress of family relations, controversial role functions, and economy (Praiwan, 2007; Morimoto, Schreiner, & Asano, 2003).

Providing adequate supports that meet the needs of caregivers throughout the entire time on their roles of providing care to patients are important. Good self-care will enhance patient's recovery and lessen complications. Researchers are aware of the importance of fulfill caregivers' needs while providing homecare for stroke survivors. These findings will provide the basis information for healthcare team to promote the continuous and efficient ability of caregivers for stroke survivor patients living at home.

Objectives

This study investigated the needs of caregivers for supports on providing care to stroke survivors living at home.

METHODS

This cross-sectional survey was approved by the Human Research Ethics Committee of the Boromarajonani College of Nursing Saraburi. Participants were informed of their right to voluntary join or not to join the study. The written consent to participate in this research were obtained by researchers.

Participants

Participants were 81 caregivers who are relative and providing care for patients with stroke survivors lived in Muang district, Saraburi Province. They were randomly selected by multi-stage sampling method. Sample size calculation required 203 samples according to Taro Yamane formula with the allowable 5% error at $p < .05$ (Yamane, 1967).

Measurement

Four questionnaires for data collection were:

1. Personal information of caregivers including gender, age, marital status, religion, professional care, education, income, relationship to the patient, time spent on providing care in one day, reasons for providing care to patient, and health problems occur after care.

2. Patient information including gender, age, duration of stroke illness, symptoms and disease severity, and number of times admitted to hospital.

3. Patient's activity of daily living was assessed using Barthel ADL index comprised of 10 questions: the ability to eat (Feeding), bathing (Bathing), personal care (Grooming), get dress (Dressing), defecation (Bowels), urinate (Bladder), use toilet (Toilet use), transfer (Transfer), moving (Mobility), and step on stairs (Stairs) . The total possible scores range from 0 – 20, with lower scores indicating increased disability. The criteria used for interpretation of patient's current level of ability were Total dependence (0-4), Severe dependence (5-8), Moderate dependence (9-12), and Low dependence (≥ 13), scale reliability was .95.

4. The needs of caregivers was assessed using 36 questions including the patient care information (6 items), the spiritual support (5 items), the health care support (5 items), the strengthen of energy support (5 items), the home management support (5 items), the financial support (5), and the resting support (5 items). Response options were 4-point scale range from not at all (1) to very much (4). The scale reliability was .92.

Data analysis

Data was analyzed using descriptive statistics for personal information include the number of hours in a day care, income, age of caregivers, the ability to do daily activities of the patient, and needs of stroke caregivers.

RESULTS

Caregivers and stroke survivor characteristics

The caregivers' ages ranged from 21.6% of younger adult, and 47.8% of middle age (41-60 years), and 30.8% of late adult (> 60 years). Majority of caregivers (76.8 %) had low monthly income (< 340 USD). Most caregivers were stroke survivors' children (42.00%) and their spouses (34.60%). Only 29.2% of caregivers spent time < 3 hours per day in providing care for patients at home. Proportion of stroke survivors with Total dependence on activities of daily living was 26.20% whereas 64.60% of those stroke survivors were low dependence as showed in figure 1.

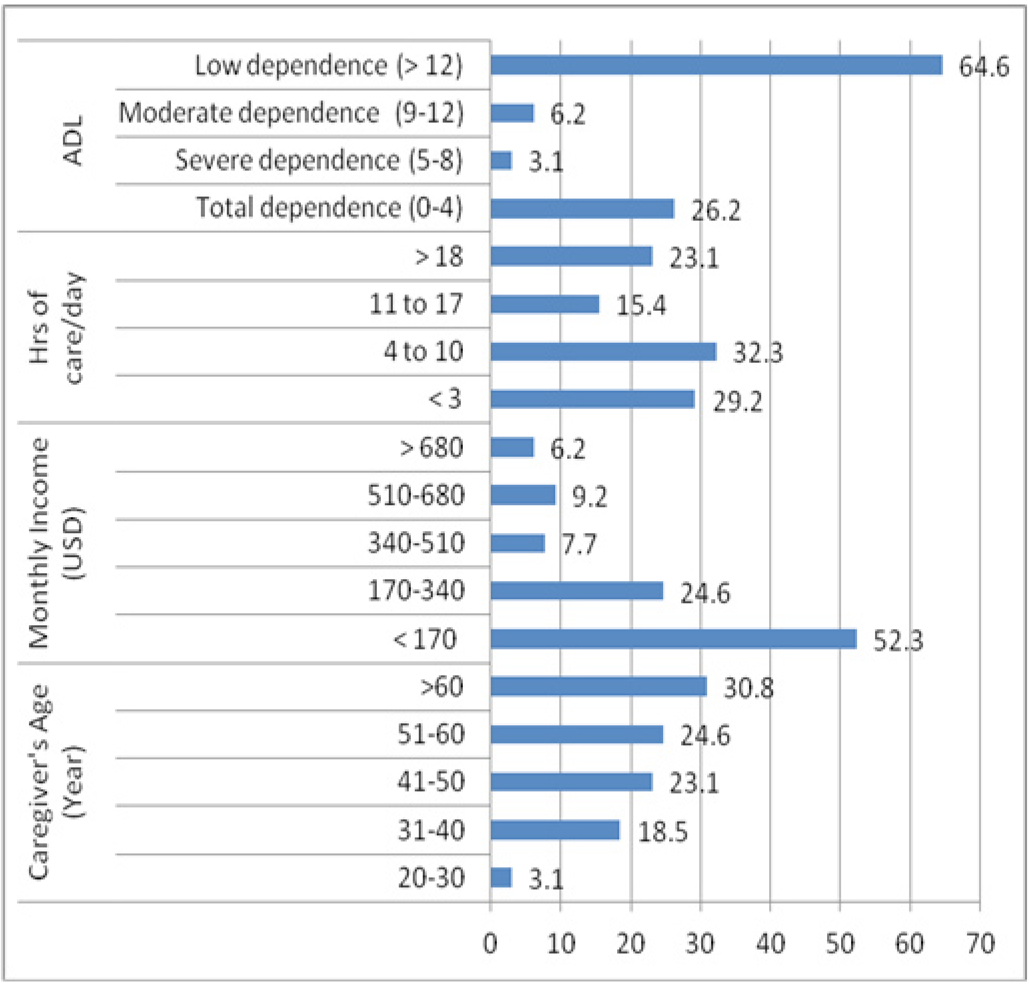

Figure 1. Caregivers and stroke survivor characteristics

Caregivers' supports needs

Findings revealed that caregivers of stroke survivals needed overall supports for providing care at home at high level (mean = 3.20, SD = 0.45). They also need high supports related to spiritual (mean = 3.33, SD = 0.56), patient's health information (mean = 3.26, SD = 0.68), financial (mean = 3.25, SD = 0.71), health care (mean = 3.21, SD = 0.54), home management (mean = 3.14, SD = 0.63), and relaxation (mean = 3.02, SD = 0.66) as showed in Figure 2.

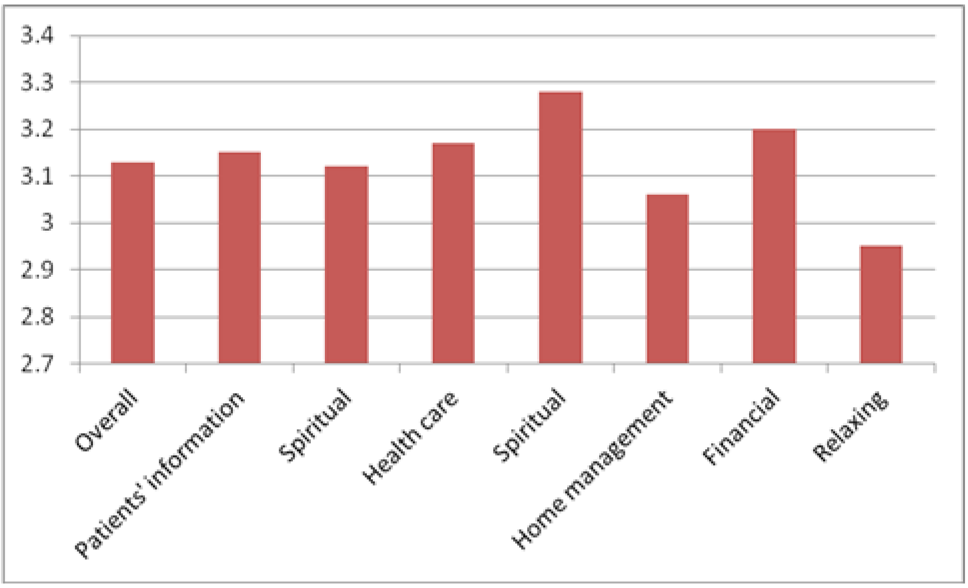

Figure 2. Caregivers' supports needs
Levels: Low < 1.33, Moderate 1.34-2.66, High > 2.67

DISCUSSION

This study explored types and levels of support needs of caregivers in providing care to community-dwelling stroke survivors. The results of this study could be used in planning for providing supports to caregivers in Saraburi province. Most caregivers in this study had low income and related to stroke survivors as their children and spouses. Most stroke survivors were found to have low dependence on daily living activity and time spent on providing care per day of caregivers were more than three hours. Findings revealed that caregivers need high level of overall support. Types of supports needed were caregivers' spiritual health, patient's health information, financial, health care, home management, and relaxation.

Finding from this study was similar to the report of the needs and concerns of stroke caregivers in the US during the early post-stroke period with their needs and concerns related to five major categories: information, emotions and behaviors, physical care, instrumental care, and personal responses to caregiving (Bakas, Austin, Okonkwo, Lewis, & Chadwick, 2002). The surveys of caregivers in caring patients with stroke at home found that the information needs were to prevent constipation, observing the appearance of urine to assess urinary tract infection and other complications. Caregivers also seeked other knowledge and useful information for application to their care for patient to gain normal health as possible (Praiwan, 2009).

In addition being female or wives of stroke survivors, perceived poor physical or mental health were found to increase caregivers' stress and burden on providing care for stroke survivors (Rombough, Howse, & Bartfay, 2008). The examination of health-related quality of life in family caregivers of older stroke patients in Japan revealed the twice prevalence of depressive symptoms (52%) compared to community dwelling older people that warranted further treatment (Morimoto, Schreiner, Asano, 2003). The study on educational needs of relatives as caregivers of stroke found that the less ability of patients on daily living activity significantly influent caregivers' need of promoting on spiritual power. Caregivers were found to build more spiritual energy for treatment and rehabilitation of patients (Chuangsawadsuk, 2008).

CONCLUSION

This study contributed to the developing of health system in Saraburi province to provide health services related to discharge planning with emphasis on spiritual and patient health information along with other support needs for caregivers of community-dwelling stroke survivors. Offering patient' information especially stroke pathological changes can help in the activities of daily living effectively. The promotion of caregivers' health and spiritual empowerment will improve quality of life and prevent problems in the long term care. In order for the care of patients following a stroke to be effective, depression in the elderly with limited learning needs to be assessed regularly for proper care.

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