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Health Information-Seeking Behavior among Elderly in Northern Thailand

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Abstract:- This research aimed to investigate the health information seeking behavior among the elderly. The sample was 410 elderly people living in Doi Saket district, Chiang Mai province selected specifically from 13,302 people population. Data collection was conducted from November in 2019 to February in 2020. The study result showed that most of the sample group needed health information on disease management and illness (52.20%), health promotion and prevention (31.22%), alternative medicine and complementary therapy (7.80%), food, herbs and other products that help to cure disease and promote health 97.07%), health and public health service (1.71%). The sample group searched information from sources as individuals, mass media, social media, and print media, which were accounted for 50.49%, 23.41%, 22.20% and 3.90%, respectively. The sample searched information from neighbors, patients or people with related experience, public health volunteers, medical personnel, and folk philosopher that were accounted for 39.76%, 27.80%, 21.46%, 6.59% and 4.39% respectively. They searched information from television media (65.61%), radio (34.39%), LINE programs (45.85%), Facebook (39.51%) and website (14.63%). The most applied print media by the sample group were leaflets or documents from government agencies (52.93%), magazines, journals and newspapers (44.63%), and academic books (2.44%). Most of the sample applied and tried the searched information immediately without thinking, analyzing or seeking additional information from other sources, which was accounted for 77.32%. While the sample who analyzed and found additional information from other sources before applying was accounted for 22.68%. It was also found that the sample did not know reliable sources, did not understanding the information, or being unable to interpret the obtained information properly, and being unable to access data sources were accounted for 56.34%, 28.29% and 15.37%, respectively.

Keywords:- *Information Seeking, Health, Elderly People.*

I. INTRODUCTION

Thailand had entered an aging society since 2005, with 6.6 million people aged over 60 years, accounting for 10% of the total population (Academic Bureau, The Secretariat of the House of Representatives, 2018).The increase rate in the number of the elderly in Thailand was at a very high and continuous level. The percentage of the number of elderly from 2012 to 2016 tended to increase every year by 10.7%, 12.2%, 14.9%, 16.0% and 16.9%, respectively (National Statistical Office, 2014).Also, in Southeast Asian countries, Thailand had the second highest number of elderly people after Singapore (Office of the Permanent Secretary, Ministry of Social Development and Human Security, 2015). The rapidly increasing proportion of the elderly population indicated that it is very necessary for Thailand to be prepared to support a coming elderly society. The elderly group was considered to be at high risk of developing various diseases due to natural deterioration of the body and various illnesses that require different care from other populations.

Many elders tried to search health knowledge and information to apply and adaptto the elderly health carein the family. The health information seeking behavior of each elderly person was different, which depended on many factors, such as basic knowledge, economic and social status, etc. As a result, they obtained a variety of health information differently, which would affect their actual application and their health and quality of life as well. Wilson(2000). Stated that information-seeking behavior is a behavior of human beings that aim to seek information to response to their information needs. Meanwhile, Barsevick & Johnson(1990). Said that health information-seeking behavior is a human behavior that needs to be aware of specific information that is both beneficial and harmful to health. It is also a process for dealing and solving problems when faced with health problems or situations. Moreover, at present, the characteristics of sources of information have changed from the past. That is, originally people tended to search information from their main sources of information, which were books, newspapers, magazines, etc. Now with the advancement of information technology, it is possible to search information from other information sources, such as websites and social media, etc. As a result, people's information seeking behavior has changed as well (Pornchita, 2016).

Doi Saket District, Chiang Mai, Thailand is a semi-rural community, located about 40 kilometers from the city of Chiang Mai. There has a mix of rural and urban lifestyle with an elderly community that has 26.9% elderly population compared to the total population. From preliminary data collected by the researcher, there were top 5 diseases found in elders in the areas, including diabetes, hypertension, cardiovascular disease, paralysis and nephrotic disease. These elderly people had different experiences of seeking health information for self-care. Therefore, the researcher was interested in studying the

behavior of information seeking behavior for elderly care. The objectives of this research were to study 1) the need for health information of the elderly, 2) the health information sources, 3) the utilization of health information, and 4) the problems and obstacles in the seeking for health information. This study applied a conceptual framework of Barsevick & Johnson's Health information seeking behavior-HISB (1990) in conjunction with Wilson's concept of behavioral information (2000), which could be summarized that the health information seeking behavior is a type of information behavior of a person as a process in seeking health information from various information sources in order to meet their health information needs. The channels for obtaining health information can be in the form of face-to-face communication and obtaining information from various media. It is also a strategy for managing and solving individual problems when facing health situations.

II. METHODOLOGY

This research was a descriptive research with data collection between October - November 2019.

Population and Sample

The population used in the study was 13,302 elderly people in Doi Saket District, Chiang Mai Province, Thailand. The sample size was 373 people determined using the sample size table of Krejcie & Morgan (1970). To prevent the loss of the sample during the research, the sample size was increased by 10%. Finally, the total sample size was 410 people. To select a specific sample group, there was a defining for features, including having a good and normal awareness, being able to communicate, read and write in Thai, and being willing to cooperate in the study.

Research tool

The tool used in this study was a questionnaire, which consisted of 2 parts, including 1) general information questionnaire and 2) health information seeking behavior questionnaire. The questions covered in health information needs, types of health information sources, motivation to seek health information, utilizing of the available health information, and problems and obstacles in seeking health information. The tool used for data collection in this research was created from relevant literature reviews by the researcher. The content validity index was calculated as 0.88. The reliability was tested in a sample of 30 elders with the Cronbach's coefficient, and delivered a total reliability of 0.91.

Data collection

The researcher collected data at the sub-district community health center on the examination day of the elderly by appointment, and on the visiting day at home in case of no examination during the specified period. The researcher explained the research objectives to protect the rights of sample groups and requested permission to collect data by answering questionnaires, which took about 30 minutes to collect each individual.

Data analysis

Personal data and health information seeking behavior data were analyzed using descriptive statistic by distributing frequency, mean, standard deviation and percentage.

Ethical considerations

This research was conducted in accordance with the ethical principles of human research. The decision to participate in the study was voluntary. The information of the sample was secure. The research also was approved by the Human Research Ethics Committee, Faculty of Public Health, Chiang Mai University (ET016/2561).

III. RESULTS

1. General data of the sample

Most of the sample were female (52.44%), and aged between 60-65 years old (68.54%). The relationships with the elderly were offspring (55.12%), spouse (25.86%) and relative (19.02%). The majority of them were educated at the elementary school level (80.24%). The pre-retirement occupations were agriculture (66.10%), followed by trade/employment (16.59%), with income between 5,001-10,000 baht per month (59.27%). All of the elderly had underlying diseases. The top 5 most common diseases were high blood pressure (28.29%), diabetes (46.83%), cardiovascular disease (22.20%), musculoskeletal disease (20.98%) and neuropathy disease (12.44%), respectively, as shown in Table 1.

Table 1 General information of the sample.

General information	Number (n = 410)	Percentage
Gender		
Male	195	47.56
Female	215	52.44
Age (years)		
The lowest	61	
The highest	72	
Average	64.5	
60-65	281	68.54
66-69	119	29.02
70 and above	10	2.44
Primary caretaker		
Offspring	226	55.12
Spouse	106	25.86
Relative	78	19.02
Education level		
- Primary education	329	80.24
- Junior high school	26	6.34
- Senior high school / Vocational certificate	21	5.12
- Diploma / High Vocational Certificate	17	4.15
- Bachelor's degree	14	3.41
- Postgraduate	3	0.73
Pre-retirement occupation (before age 60)		
- Agriculture		
- Trade / Employment	271	66.10
- Serving for	68	16.59

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government service / State enterprise	13	3.17
- Private company	24	5.85
- Unemployed	34	8.29
Current occupation		
- Agriculture	63	15.37
- Trade / Employment	52	12.68
- Unemployed	295	71.95
Average current income / month (baht)		
5,001-10,000	243	59.27
10,001-15,000	106	25.85
15,001-20,000	48	11.71
>20,000	13	3.17
Number of family members		
1-2 people		
More 2 people or more	64	15.61
	346	84.39
The health status of elder in care		
Havingcongenital disease	410	100
Common diseases of the elderly in care (having more than 1 common disease)		
- Hypertension	280	68.29
- Diabetes	192	46.83
- Cardiovascular disease	91	22.20
- Musculoskeletal disease	86	20.98
- Neuropathy	51	12.44

2. Health information seeking behavior

2.1 Health information need

Most of the sample group had a need for health information in various issues as follows: information about dealing with existing disease and illness (52.20%), health promotion and disease prevention (31.22%), alternative medicine and complementary therapy (7.80%), foods, herbs and other products that help to cure disease and promote health (7.07%), public health facilities (1.71%), as shown in Table 2

Table 2 Health Information Needs.

General information	Number	Percentage
- Dealing with existing diseases and illnesses	214	52.20
- Health promotion and disease prevention	128	31.22
- Alternative medicine and complementary therapy	32	7.80
- Foods, herbs and other products that help to cure disease and promote health.	29	7.07
- Health and public health facilities	7	1.71

2.2 Types of health information sources

Most of the samples sought health information from people sources (50.49%), mass media (23.41%), social media (22.20%), and print media (3.90%), respectively, as shown in Table 3.

Table 3 Types of health information sources.

Types of information sources	Number	Percentage
- People sources	207	50.49
- Mass media communication	96	23.41
- Social media.	91	22.20
- Print media	16	3.90

When considering each aspect, it was found that the most used people sources of health information by the sample included neighbors (39.76%), patients or people with related experience (27.80%), public health volunteers (21.46%), medical personnel (6.59%) and folk philosopher (4.39%), respectively. For the mass media communication for health information sources, most of the sample group used television (65.61%) and radio (34.39%). For the social media as sources of health information, most of the sample groupused LINE program (45.85%), Facebook (39.51%) and website (14.63%). The most used print media as health information sources by the sample group included leaflets or documents from government agencies (52.93%), magazines, journals and newspapers (44.63%) and academic textbooks (2.44%), as shown in Table 4.

Table 4 Health information sources divided by type of information sources.

Type of media	Number	Percentage
People media (n=410)		
- Neighbors	163	39.76
- Patients or people with related experience	114	27.80
- Public health volunteers	88	21.46
- Medical personnel	27	6.59
- Folk philosopher	18	4.39
Mass Communication (n = 410)		
- Television		
- Radio	269	65.61
	141	34.39
Social media (n = 410)		
- Line application	188	45.85
- Facebook	162	39.51
- Website	60	14.63
Print media (n=353)		
- Leaflets or documents obtained from government agencies	217	52.93
- Magazines, journals, newspapers	183	44.63
- Academic textbooks	10	2.44

2.3 Utilization of the sought health information

When the sample group sought the health information they needed, it was found that the majority of the samples immediately applied that information to the elderly without thinking, analyzing or seeking additional information from other sources (77.32%), while 22.67% of them analyzed and sought additional information from other sources before applying the information, as shown in Table 5.

Table 5 Utilization of the sought health information.

Type of Information Sources	Number	Percentage
- Apply the sought information immediately to the elderly without thinking or looking for additional information	317	77.32
- Think, analyze and seek more information	93	22.68

2.4 Problems and obstacles in seeking health information

The sample group had problems and obstacles in seeking health information as followed: not knowing reliable sources of health information (56.34%), not understanding the information or being unable to interpret the obtained information correctly (28.29%),being inaccessible to information sources (15.37%), as shown in Table 6.

Table 6 Problems and obstacles in seeking health information.

Types of data sources	Number	Percentage
- Not knowing reliable health information	231	56.34
- Not understanding the information or being unable to interpret the obtained information correctly	116	28.29
- Being inaccessible to information sources	63	15.37

VI. DISCUSSION

Older people were more likely to have health problems than other ages. Health problems in the elderly caused by the deterioration of the body and the improper health behavior, including disease and illness (Tippawan, 2017). Many elderly people suffered from health problems caused by many reasons, which could be divided into 2 main groups as follow. Firstly, the cause of physiological factors, such as degenerative changes in organ systems, system of hormones and enzymes, etc. (Tippawan, 2017). Secondly, the cause of social factors, such as mental health, depression, neglect, inferior self-worth, decreased self-help ability, etc. This was consistent with the reports of Jukkrit, Suwinai &Kanyanat(2018) & Vijan et al. (2005),who studied the obstacles of health care behaviors affecting blood sugar control among elders with diabetes, and reported that the majority of the elderly sample had obstacles of health caring in terms of diet, exercise, drug intake and social interact, which affected the control of their blood sugar levels. This obstacle was because the thinking that self-health care, especially in the condition of illness, was a difficult and complex matters, which they were not capable of performing such health care activities. Also, some elderly people could not remember proper behavioral advices given by their doctors or healthcare professionals (Schoenberg & Drungle,2001).As a result, most elders sought information on what would help their self-care to be healthy, recover from illness or promote better health and quality of life. This was consistent with the study of Suphattra et al. (2013), which found that the elderly had a need for information about changes in the body, disease and illness, prognosis and progression of the disease, as well as changes occurring in the elderly patients. The study result by Sasiphat (2004) found that most of the elderly lacked knowledge about disease and health care. There was also a need to learn and seek additional information about such matters from different sources.

The most information sources used by the samples included people sources (50.49%), mass media (23.41%), social media (22.20%), and print media (3.90%), respectively. When considering each aspect, it was found that the most used people sources of health information by the sample included neighbors (39.76%), patients or people with related experience (27.80%), public health volunteers (21.46%), medical personnel (6.59%) and folk philosopher (4.39%), respectively. This was consistent with the study of Chonthicha & Saman (2016) about health information behavior of the elderly in Nakhon Ratchasima Province, and indicated that the majority of the elderly sought health information from close people, such as relatives and neighbors because of the intimacy and trust in sharing their personal story. Besides that, it was also easy to communicate. Some elders sought information by themselves, and some of them had relatives or carers took care of the information seeking. In addition, the study of Jukkrit W.& Nongrak (2011) also reported that elders and elderly diabetics had a need for information on complementary therapies to support conventional therapy. Most of the sample group chose to receive information from people who had previously experienced diabetes and received complementary therapy as they saw the effective result of the therapy and it was easy to ask for advice or consult. Moreover, it was found that folk philosopher or folk healer was another group of people that the sample group used and trusted as a source of information because they have confidence in wisdom and faith according to the inherited story of the past.

Besides people media, TV and radio also were found to be a media for the elderly as a source of health information in following order as it was easily accessible, commonly used in daily life and offered entertainment. This was consistent with the research of Sethawit (2016) about media exposure behavior affecting the lifestyle of the elderly in Phuket, and found that the behavior and lifestyle of elders and family members were influenced by a high level of media, especially television and radio media. The interesting

issue of television and radio media was about lifestyle, housing, food, and health. Most of the elderly lived at home all day long, both by themselves alone and with caregivers, so there were many opportunities to watch television and listen to radio, and continually received various information from both sources. It was also found that the modern marketing patterns of today's television and radio programs influenced the attention of the audience to create faith and lead to a decision on choosing a product or service that was recognized by television and radio (Wirasak, 2017). In terms of social media, the results of this research found that elderly people chose to use social media as the third one after people media and mass communication media. Line program, Facebook and Website were the most popular, respectively. This was consistent with the study of Wisap at (2017) about the use of Line program in elderly people. The results of the study showed that the elderly used Line program to communicate with caregivers, relatives or friends with an intention to share and search various health information, making it became a part of everyday life of the elderly and caregivers. Likewise, Natthanan (2015), who studied the satisfaction of choosing new media through social media in mobile phones to promote the quality of life of the elderly and their family members, found that health communication among elderly and family members, including researching for health information, was conducted through social media program by their interest and expertise, such as Facebook, Line, email and Instagram, etc. to seek and share news or information related to caring, preventing and solving health problems. There were several reasons why older people choose to seek and share health information through social media, including easy accessibility, no restrictions on time and place, freedom to use, entertainment and getting the needed and up-to-date information (Bliemel & Hassanein , 2007). Meanwhile, printing media was the least selected information sources for the elderly. For printing media, the elderly would choose to seek information from leaflets and academic papers obtained from various departments, and academic textbooks, respectively. It could be explained that researching and seeking information from printing media requires reading and understanding of the reading content, which was considered as one of the obstacles for Thai people. According to a survey by the National Statistical Office in 2015 (National Statistical Office, 2015), Thai people had a low level of reading behavior with a population of 48.4 million readers (77.7%) and 13.9 million non-readers (22.3%), which was a relatively high statistic, and was a major obstacle to obtaining knowledge and information that are useful to life. The main reason why Thai population reading less books was due to their higher interest in receiving information through various online channels (National Statistical Office, 2015).Also, from the study of behavior in reading and buying books of Thai people aged between 15 – 69 years by the Faculty of Economics Chulalongkorn University and the Research Center for Social and Business Development in 2015, it was found that there were 40.2% of people who read regularly (more than 3 days per week frequency), 20.1% of people who read sometimes (less than 3 days per week frequency), and up to 39.7% of people who do not read at all. In addition, from the survey of the main reason of those who did not read at all, the reason was caused by not having time to read (63.0%), poor eyesight (29.5%) and dislike to read (25.7%) (Faculty of Economics, Chulalongkorn University, 2015).

In addition, the results of this research also found that most of the elderly would immediately applied the information they acquired through various sources without a process to consider or analyze their correctness, appropriateness or reliability. This resulted in a similar way to the research of Chonthicha & Saman (2015), which reported that only a group of older people examined the accuracy and reliability of the information obtained. Therefore, it was important for the relevant sectors to take measures to encourage the elderly to be aware of the information evaluation before applying it.

Regarding the problems and obstacles to seek health information, it was found that most of the sample did not know any reliable source of health information, inability to understand information, inability to interpret the obtained information properly and inability to access information resources. This was consistent with the report of Chonticha & Saman (2015), which found that a large number of people, especially in rural areas or remote areas, was unable to seek health information because of the inability to know the source of the information or what source provide good and reliable information. Some might know where to search for information, but could not access the source of information due to many factors, such as difficulties to access the information sources, technological barriers like inaccessible phone signals or internet, inability of using electronic devices like smartphones, computers, etc. In accordance with the survey of the National Statistical Office in 2013, which surveyed the use of information and communication in Thai households, and found that there were more number of people in the municipality area using the Internet than people living outside the municipality area, which accounted for 39.90% and 23.20%, respectively. Meanwhile, the report of Bhadrashetty and Maheswarappa (2014). Indicated that the problems and obstacles in seeking health information among the elderly was partly due to the fact that the elderly were unaware of accessible resources, and partly due to the level of education and basic knowledge of the recipient that might not be enough to understand that information, causing misunderstanding when received the information(Yukiko, Chihiro and Keiko, 2012).

V. CONCLUSIONS

From this research, it could be seen that most of the elderly people in the study area had health information seeking behavior to take care of the elderly in their own family. Because most of the elderly faced different health care problems, they needed to find a solution to the problems that they were facing. Although, part of the elderly did not face any health care problems, but there was also a behavior of seeking information to promote health, prevent future disease or illness. However, it could be seen that most of the elderly still did not have much analytical skills. Most of them immediately applied the information they obtained

without knowing how accurate they are. Thus, it was one of the important problems that should be solvedin further study. In addition, the results of the research indicated major problems and obstacles faced by the elderly in seeking health information, which consisted of not knowing any reliable information sources, not understanding the information and the inability to access information sources. These were the reasons for having poor quality information, which when being applied or shared, it would cause negative effect on the health of the elderly in the family and further communities.

CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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REFERENCES

[1]. Academic Bureau, The Secretariat of the House of Representatives, 2018. Aging society and driving the Thai economy. [cited 12 November 2020]. Available from: http://library2.parliament.go.th/ejournal/content_af/2561/jul2561-1.pdf
[2]. Faculty of Economics Chulalongkorn University A study of Thai people's reading and buying behavior. [cited 20 November 2020]. Available from: http://sabcentre.com/download/article/article20161016081032.pdf
[3]. Jukkrit W., Suwinai S., & Kanyanat U. (2018). Barriers to health care practice that impact to glycemic control among elderly with diabetes mellitus. Journal of Community Development and Quality of Life 6(2): 351-61.
[4]. Jukkrit W. & Nongrak S. (2011). Choosing Complementary and Alternative Medicine in Diabetics Patients. In national and international academic conferences, Khon Kaen University, Thailand Year 2011, 27 – 29 January2011. 63-69.
[5]. Chonthicha D., & Saman L. (2016). Health information behavior of the elderly in Nakhon ratchasima. Journal of Information Science, 34(2).75-89.
[6]. Natthanan S. (2015). A Case Study of The Use of New Media through Social Media on Smart phone to Improve Quality of Life for Elderly with Family Members in New Zealand. Veridian E-Journal, Silpakorn University (Humanities, Social Sciences and arts), 8(3), 96-117.
[7]. Tippawan S. (2017). Healthy food innovation for the elderly. EAU Heritage Journal Science and Technology, 11(3), 1-10.
[8]. Pornchita U. (2016). Health information seeking behavior of the elderly. Parichart Journal, Thaksin University, 29(2), 71-87.
[9]. Wisapat C. (2017). The use of LINE by the elderly: a phenomenological study. Veridian E-Journal, Silpakorn University (Humanities, Social Sciences and arts), 10(1), 905-918.
[10]. Wirasak J. (2018). Factors Associated with Violation of Health Products Advertising Act of Community Radio Station in Health District 6. Thai Food and Drug Journal, 24(2), 57-64.
[11]. Sasiphat Y. (2004). The elderly: cognitive synthesis. Bangkok: Thammasat University Press
[12]. Sethawit K. (2016). Media Exposure that Affects the Lifestyle of Elderly in Phuket. FEU Academic Review, 10(4), 123-126.
[13]. Office of the Permanent Secretary, Ministry of Social Development and Human Security. Thai elderly population: present and future. [cited 20 November 2020]. Available from:
[14]. http://www.dop.go.th/download/knowledge/knowledge_th_20160106135752_1.pdf
[15]. National Statistical Office. (2013). Survey of the use of information and communication technology in the household, 2013. Bangkok: Office of Economic and Social Statistics. Ministry of Information and Communication Technology.
[16]. National Statistical Office. (2014). Survey of the elderly in Thailand. [cited 1 Dovember 2020]. Available from: https://www.m-society.go.th/article_attach/14494/18145.pdf
[17]. National Statistical Office. 2015. Survey of reading books of the Thai population 2015.[cited 1 December 2020].
[18]. http://service.nso.go.th/nso/nsopublish/themes/files/readingFull58.pdf
[19]. Barsevick A.M. & Johnson J.E. (1990). Preference for information and involvement, information-seeking and emotional responses of women undergoing colposcopy. Research in Nursing and Health, 13, 1-7.
[20]. Bhadrashetty A. & Maheswarappa B.S. (2014). Health Information needs, sources availability and their use by elderly people in southIndia: A case study of Kalagi, A Gram Panchayat in Chittapur Talukof Gulbarga District, India. Research Journal of Library Sciences,2(6), 7-11.
[21]. Bliemel M. & Hassanein K. (2007). Consumer Satisfaction with Online Health Information Retrieval: A Model and Empirical Study. E -Service Journal, 5(2), 53-83.
[22]. Krejcie R.V. & Morgan D.W. (1970). Determining Sample Size of Research Activities. Education and Psychological Measurement, 607-610.
[23]. Schoenberg N.E. & Drungle S.C. (2001). Barriers to non–insulin dependent diabetes mellitus (NIDDM) self-care practices among older women. Journal of Aging and Health 13(4): 443-466.

[24]. VijanS., Stuart N.S., Fitzgerald J.T., Ronis D.L., Hayward R.A., Slater S. & Hofer T.P. (2005). Barriers to following dietary recommendations in Type 2 diabetes. Diabetic Medicine, 22(1), 32-38.
[25]. WilsonT.D. (2000). Human information behaviors. Informing Science, 3(2), 49-55.
[26]. Yukiko S., Chihiro K. & Keiko K. (2012). Health information seekers in Japan: a snapshot of needs, behavior, andrecognition in 2008. Journal of the Medical Library Association, 100(3), 205–213.