Relationship between perceptions of health status, needs, expectations, ability for self-care among elderly people dwelling at Community in Khet Bang Phlat in Bangkok of Thailand

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Abstract

Purpose: to examine the relationship between perceptions of health status, needs, expectations, ability for self-care among elderly dwelling at Community in Khet Bang Phlat in Bangkok of Thailand. Methods: Descriptive design was conducted in elderly people. A multi-stage random sampling technique was used. Data collection was carried out by using two questionnaires. The first questionnaire collected information related to general background, basic clinical examination, physical health self-reports and mental health self- reports. The second questionnaire was used in order to gather data in relation to perception on needs, expectations and self-care ability. All of questionnaires such as needs, expectations, and self-care ability were reliability coefficient at a level of .90, .93, and .93 respectively. These two questionnaires content validity had Index of item Objective Congruence equal to 0.8. The statistical analysis used in the study was descriptive statistic and Pearson correlation. Results: Majority of participants were female (65.3 %) and male (34.70%), in age between 70 to 79 years (47.2%). Nearly half of them (50.5%) scored on self- care ability, needs, and expectations were

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at moderate level with means of 16.40 (S.D.= 3.27), 18.85 (S.D.=2.53), 18.39 (S.D.=2.70) respectively.

Conclusion: The findings were that the ability for self-care in elderly people was in moderate level and was not gender related.

Keywords: health status, needs, expectations, self-care ability, elderly

1. Background

People worldwide are living longer. Most people can expect to live into their sixties and beyond. By 2050, the world's population aged 60 years and older is expected to total 2 billion, up from 900 million in 2015, 80% of all older people will live in low- and middle-income countries (WHO, 2015). Thailand, as middle-income countries, is becoming an aging society. In the last three year, 15% of population in Thailand were elderly. Approximately 59.1% of elderly people, over 60 year old, live in rural area. The accumulation of a wide variety of molecular and cellular damages overtime are affecting ageing people that a gradual physical and mental capacity decrease, whereas a growing risk of disease. Common diseases in elderly include hearing loss, diabetes, hypertension, depression, and dementia. Chronic conditions have decreased physical and self-care ability due to aging process-related deterioration.

Health behaviors were changed based on perception of health status, often lead to confronting with several health problems, which is a burden for oneself and family. This also impacts health care system of Thailand by increasing unnecessary health costs. Self-care is referred to performance of activities in daily living such as bathing or toileting, engagement in health behaviors without helping from health care sources or as a constructed

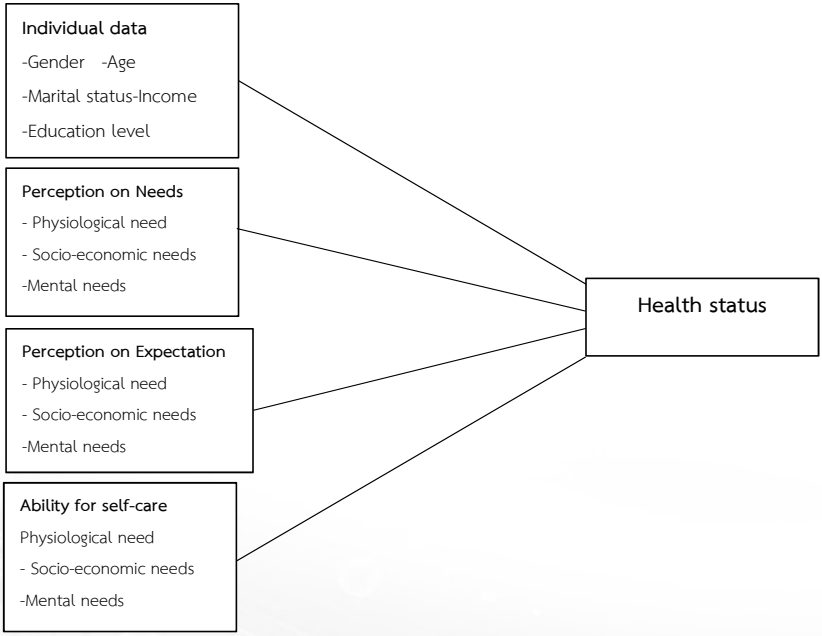
of the Self Care Theory . Self-care agency developed in every life through learning can be affected by genetic and constitutional factors, culture, life experiences and health status *(Orem,1995)*. Some elderly people become depend on health care when their ability for self-care is less than required in daily living as well as their needs including in expectancy. Previous research indicated that perceived health status, and ability for self-care among elderly people has been cited as a factor in enhancing adherence to the treatment plan, and better self-care *(Riegel, Moser, et al., 2009)*. However; persons will be more likely to engage in the health behaviors, if they have knowledge about and perception on health status consistent with behavior, if they develop self-care abilities comprised with needs and expectations to change their health behaviors, and if they experience social support that positively influences on them to preventative health behaviors. It may be expected that elderly people are differences not only health status, but self-care ability also in which are related variables between elderly people whose age over more 60 years of age. Knowledge of related factors on their ability for self-care, needs and expectancy in elderly people who living in home dwelling community, is important for health care professionals in order to plan a suitable care for this group, both on an individual and societal level. The aim of this study was to determine ability for self-care among elderly people at Community in Khet Bang Phlat in Bangkok of Thailand.

2. Research purposes

To examine the relationship between perception of health status, needs, expectations, ability for self-care and relationship between gender and health status, among elderly dwelling at community in Khet Bang Phlat in Bangkok of Thailand.

Conceptual Framework

This study was based on Orem's theory that Human health is the ability to reflect on one's self, to symbolize experience, and to communicate with others. Self-care involves those learned behaviors that individuals perform in order to preserve or promote their life, health, well-being and prevention or treatment of their disease. Self-care can play an effective role in the management of individuals with chronic diseases especially elderly people who living in community. Elderly's health behavior are changed based on perception of health status, perception on needs and expectancy of oneself.



Population and sample: Target population were elderly who were living at community in Khet Bang Phlat in Bangkok of Thailand. Multi-stage random sampling method was used to obtain the sample. The steps to obtain the subjects were presented as follows: 1) A simple random sampling technique was used to select Khet Bang Phlat area from Khet Taling Chan and Khet Bangkok Noi. Then, four communities were selected randomly from communities in Bang Phlat, Bang O, Bang Bumru, and Bang Yi khan. Thus, four communities were used to obtain the subjects. 2) A simple random sampling was used to obtain the subjects who met the inclusion criteria. The subjects in each area were selected at random from the names listed when they attended the Elderly Club in each area. 392 subjects from four were taken to participate.

Inclusion criteria, to be eligible for participation in this study elderly should be 1) at least 60 years of age 2) able to read and communicate in Thai language and 3) willing to complete the self-report questionnaires.

The sample size: the main analysis method used in the study was correlational analysis.392 participants (*Yamane, 1973*) who were met the inclusion criteria.

Measures

The measures used in this study include: 1) a background information form, 2) questionnaire asking about needs, expectation and ability for self-care (physical, mental, social, and economic)

1. Background information: This form included questions about age, gender, marital status, and educational level, as well as questions about family income and type of universal coverage scheme.

2. Elderly perception questionnaire included 3 dimensions with 18 items each; 1. needs, expectation, and ability for self-care. Previous research instruments and literature review provided by the researcher was used to

measure the Elderly perception questionnaire. These questionnaires were valid determined by content validity, and reliable by Alpha Chronbach co-efficient. Alpha Cronbach coefficient were 0.91 for needs dimension, 0.93 for expectation, and 0.93 for ability for self-care. Respondants were asked to respond each item in a 4 point Likert scale (0 = strongly agree; 1 = agree; 2 = disagree; 3 = strongly disagree). Standardized scores outside this range were thought to indicate either less needs, expectation, or self-care ability (16 or below) or more needs, expectation, and self-care ability (39 or above). The content validity of Elderly perception questionnaire was performed by five experts and the value of CVI of this scale was .85. The internal consistency reliability was applied to 20 subjects who met the same inclusion criteria of the study. The Cronbach's alpha coefficient was.94.

3. Data collection

Written informed consent and baseline data were collected between October 2016 to September 2017. Where needed, participants were assisted in filling out the questionnaires, either by family members, neighbors, or by trained assistants. Data collection included measurements for sex, age, living situation, educational level, income, presence of chronic illness and elderly perception questionnaires (needs dimension, expectation dimension, and ability for self-care dimension).

4. Protection of human subjects

To ensure the protection of human subjects, the consent form and all questionnaires were evaluated and approved by the Institute Review Board, Suan Dusit University prior to the start of data collection. Participants were informed that participation in the study was voluntary and they could

withdraw from the study at any time by not continuing to complete the questionnaire and without having any affects either on social service or lose any benefits. They were also informed that their information was kept confidential. Names of participants were replaced with study identification numbers. A logbook linked participant names with study identification numbers and the completed questionnaires were kept in a password protected computer. Although there were no physical risks or harms anticipated for this study, participants who become emotionally stressed while completing the measures were encouraged to contact the researcher or research assistants. Then, they were referred to appropriate counseling or psychological services.

5. Data analyses: Descriptive statistic and Pearson correlational statistics were used

Results:

A total of 392 elderly people, who met the inclusion criteria, consented to participate in the study. The majority of participants (65.3%) were female. For age, the greater number of elderly (47.2%) were in age between 70 to 79 years (47.2%) Half of the elderly (50.5%) were married followed by those who widow (38 %). In regard to educational attainment, elderly (64.3%) had received a bachelor's degree or higher. Elderly had a monthly family income range from 1000 to 30000 Baht (*M* = 1.84 Baht, *SD* = 1.13 Baht) No families were identified as lacking health insurance; they were covered by Universal Health Care coverage. Physical Health of them have been in multiple diseases (53.57%) and follow by hypertension (43.36%). 87.76% had a normal mental health while 12.24% with depression

Table 1 Demographic characteristics of elderly (N = 392)

Elderly	*n*	%
Gender		
Female	256	65.3
Male	136	34.7
Age		
60-69 year	152	38.8
69.79 year	185	47.2
80 and over year	55	14.0
Marital status		
Married	198	50.5
Widow	149	38
Single	29	7.4
Other	16	4.1
Income: Range = 15,000-0, *M* = 1.84 Baht *SD* = 1.13 Baht		
< 1,000	268	68.4
1,000-5,000	72	18.4
5,001-15,000	45	11.5
> 15,000	7	1.8
Educational attainment		
No-school	29	7.4
Primary school	252	64.3

Elderly	*n*	%
High school	60	15.3
Vocational college/ diploma	25	6.4
Bachelor's degree or higher	5	1.3
Health insurance		
Universal Health Care coverage Social Security Scheme	268	68.4
Civil Servants Medical Benefit Scheme	72	18.4
30-Baht Scheme	32	20.3
Physical Health		
Hypertension	170	43.36
Diabetes	12	3.06
Multiple chronic disease	210	53.57
Mental Health		
Normal	344	87.76
Depression	48	12.24

The descriptive characteristics of the study variables

The study variables including elderly perception on needs, expectation and ability for self-care are described as follows;

1. The results are presented in the Table 2. Elderly perception on needs ranged from 10 to 21 with mean of 18.85 (SD = 2.53). The top three physiological needs reported by the participants were 1) to receive sufficient

and hygienic five food groups, 2) need for sufficient rest/sleep and 3) need to have overall health. The participants reported that their need mental scores ranged from 5 to 12 with mean of 10.52 (SD =1.63). The top three mental needs are as follow 1) support for control of anger 2) they also need to be cared for by their family members, and 3) they need to be respected and accepted by neighbors and their societies. The participants reported that socio-economic needs scores ranged from 7 to 21 with mean of 18.42 (SD =2.71). The first three of socioeconomic needs among the participants were the needs to 1) receive financial support from income and insurance from the government, 2) receive acceptance from their children and close relatives, and 3) receive financial support from government or private sectors respectively.

Table 2 perception on needs (n=392)

variables	Possible range	Actual range	*M*	*SD*
perception on needs	0-54	10-21	18.85	2.53
Physiological needs	0-21			
1. to receive sufficient and hygienic five food groups				
2. the need for sufficient rest/sleep				
3. the need to have overall health.				
Mental needs	0-12	5-12	10.52	1.63
1. support for control of anger				
2. they also need to be cared for by their family members				
3. they need to be respected and accepted by neighbors and their societies.				

variables	Possible range	Actual range	*M*	*SD*
socio-economic needs 1. to receive financial support from income and insurance from the government 2. to receive acceptance from their children and close relatives 3. to receive financial support from government or private sectors respectively.	0-21	7-21	18.42	2.71

2. The results are presented in the Table 3. Elderly expectation on physical expectation scores ranged from 10 to 21 with mean of 18.39 (SD = 2.70). The top three physical expectation reported by the participants were 1) get sufficient rest and sleep, 2) to healthy, and 3) clean residences, fresh air and a good environment. Moreover, the participants were also reported mental expectation scores ranged from 4 to 12 with mean of 10.35 (SD =1.73), the top three mental expectation were 1) to have cheerful moods and to avoid anger, 2) to receive care from their children, grandchildren, and relatives, and 3) to be accepted by their neighbors, colleagues, and societies. However, participants were presented that socio-economic expectation scores ranged from 6 to 21 with mean of 18.05 (SD =2.92), and the top three that they reported were 1) receiving acceptance from their children, grandchildren, and close relatives, 2) to be dependent on others lessness, and 3) to be part of their societies and have friends.

Table 3 perception on expectation (n=392)

variables	Possible range	Actual range	*M*	*SD*
perception on expectation	0-54	10-21	18.39	2.70
Physiological expectation	0-21			
1. To get sufficient rest and sleep.				
2. By healthy.				
3. For clean residences, fresh air and a good environment.				
Mental expectation	0-12	4-12	10.35	1.73
1. To have cheerful moods and to avoid anger.				
2. To receive care from their children, grandchildren, and relatives.				
3. To be accepted by their neighbors, colleagues, and societies.				
socio-economic expectation	0-54	6-21	18.05	2.92
1. Receiving acceptance from their children, grandchildren, close relatives				
2. To be dependent on others lessness				
3. To be part of their societies with friends.				

3. The results on perception on ability for self-care are presented in the Table 4. With ability for self-care on physical ability, the scores ranged from 0 to 21 with mean of 16.40 (SD = 3.27). The top three that the participants reported were as follow 1) to have good health, 2) to have a sanitary residence, and 3) having clean air and good surroundings respectively. For mental ability for self-care, the scores ranged from 0 to 12 with mean of 9.92 (SD =1.91). The top three score in these dimension were 1) being able to be more cheerful and less angry, 2) being able to receive care from their

children, grandchildren, and close relative, and 3) being able to be accepted by their neighbors, colleagues, and societies. To socio-economic ability for self-care, the scores ranged from 0 to 12 with mean of 9.92 (SD =1.91). The top three score in these dimension were 1) They wanted to be accepted by their children, grandchildren and close relatives, 2) they need to have income and aging insurance from government, and 3) They need to be involved with their families, colleagues, and societies.

Table 4 perception on ability for self-care (n=392)

variables	Possible range	Actual range	*M*	*SD*
perception on ability for self-care	0-54			
Physiological ability for self-care 1. To have good health. 2. To have a sanitary residence. 3. Having clean air and good surroundings respectively	0-21	0-21	16.40	3.27
Mental ability for self-care 1. being able to be more cheerful and less angry. 2. being able to receive care from their children, grandchildren, and close relative 3. being able to be accepted by their neighbors, colleagues, and societies.	0-12	0-12	9.92	1.91
socio-economic ability for self-care 1. They wanted to be accepted by their children, grandchildren and close relatives. 2. They need to have income and aging insurance from government. 3. They need to be involved with their families, colleagues, and societies.	0-21	0-21	16.96	3.26

Correlations between study variables

Pearson correlation statistics was used to test the relationship between ที่ each dimension. The findings revealed that elderly perception on needs had a positive relationship with ability for self-care (r = 0.01, $p < .05$). In the same time, elderly perception on expectation (r = 0.01, $p < .05$) had a positive relationship with ability for self-care. (Table 5)

Considering the relationship with sub-dimensions of ability for self-care as such physical ability, mental ability, and social-economic ability. The findings showed that physical, mental, and social- economic in elderly perception on needs had a positive association with three sub-dimensions in ability for self-care of elderly perception including in physical ability (r = 0.55, p < .05), mental ability (r = 0.51, p < .05), and social- economic ability (r = 0.2, p < .05). Additionally, elderly perception on expectation had a positive association with three sub-dimensions in ability for self-care of elderly perception including physical expectation (r = 0.68, p < .05), mental expectation (r = 0.72, p < .05), and social- economic expectation (r = 0.74, p < .05).

Table 5 The correlation between the study variable (N = 392)

variable	ability for self-care		
	Physical ability	Mental ability	Social Economic ability
perception on needs			
Physical need	.55**	.51**	.2**
Mental need	.50**	.66**	.33**
Social-economic need	.37**	.40**	.75**
perception on expectation			
Physical expectation	.68**	.60**	.43**
Mental expectation	.55**	.72**	.50**
Social-economic expectation	.38**	.45**	.74**

**$p < .01$

This section was showed the correlation between the health status and gender of elderly people in community. The results showed that gender was not significantly related with health status (χ=.038, p>.05). (Table 6)

Table 6 The correlation between gender and health status of elderly people in community.

Gender	Health status				$\bar{\chi}$	*p*-value
	Healthy		Unhealthy			
	n	%	n	%		
Female	32	23.5	104	76.5	.038	.85
Male	58	22.7	198	77.3		

6. Discussion

The results demonstrated that mean score for elderly people perception on needs (mean=18.85), expectation (mean=18.39), and ability for self-care (mean=16.40) were in good level. In other words, elderly people in these study were age between 60 to 80 year old and over. They were unhealthy because of chronic condition such as hypertension. They perceive positive related to their ability for self-care including in perception on needs and expectation. Consistent with Klin-ngam and colleagues (2012), the top five chronic diseases in elderly people living in Phetchaburi province were bone and joint pain, hypertension, diabetes, muscle pain, and heart disease respectively. For the study in Sweden, Kari Sundsli & Ulrika Soderhamn (2000) found that the mean age of the participants was 74.8 years (SD =7.1). 83% of the participants had higher abilities to care for themselves. Self-care agency, perceived good health, being active, being frequently active, good mental health, not being at risk of undernutrition, and satisfaction with life were all positively related to self-care ability. In southern Norway, they found that a total of 780 persons had higher self-care ability and 240 had lower self-care

ability by using the Self-care Ability Scale for the Elderly. Self-care ability was found to be closely related to health-related issues, self-care agency, sense of coherence, nutritional state and mental health, former profession(*Dale, Söderhamn and Söderhamn, 2011*). Caldwell, Peters, and Dracup (2005) found that self-care ability was reduced in older people. Risky behavior of elderly people were being overweight (67.5%), fat/obesity (46.3%), and hypertension (23.6%) (*Viroshrat and colleagues, 2011*). Moreover Petchprapia (2015) found that 62.1% of elderly people living in Nakhon Ratchasima had hypertension, joint and back pain while 93.1% had visual impairment, urinary incontinence, and often falling. Yodsuds and colleagues (2013), reported the behavior of elderly people to be open for information and to have self-care ability. They found that the elderly had a moderate level of total self-care. Moreover, Yoosabay (2012) who found that the elderly people living in Amphur Bang Sao Thong, SamutPrakarn province needed safety followed by the need for health and sanitation, recreation, education, and housing respectively.

The relationship between an elderly people perception on needs, expectation, and ability for self-care. Based on the theoretical model proposed in the present study, elderly people perception on needs, expectation were positive related to ability for self-care. The research findings in this study indicated that greater perception on needs and expectation were significantly associated with better perception on ability for self-care. There are several explanations for these findings. Self-care can play an effective role in the management of individuals with chronic diseases including elderly people. The elderly people who perceived good health, they had higher abilities to care for themselves, they were not being at risk of under-nutrition (*Kari Sundsli & Ulrika Söderhamn, 2000*), and satisfaction with life were all positively related to self-care ability (*Dale,Söderhamn and Söderhamn, 2011*). Saurabh and team (2013) studied in role of self-care in management of diabetes mellitus.

The needs of diabetic patients were not only limited to adequate glycemic control but also corresponded with preventing complications, disability limitation and rehabilitation. Consistent with Yu-Ling Bai, Chou-Ping Chiou, Yong-Yuan Chang (2009), the study examined the factors related to self-care behavior in type 2 diabetic patients aged ≥65 years. The results found that self-care behavior scores were significantly influenced by different gender, education level, economic status and religious beliefs of older diabetic patients. This is consistent with the study of Wongpanarak and colleagues (2013) who found that 65.5% of elderly people living in MahaSarakham province had normal mental health, but 34.5% had depression. However, the result of the study was inconsistent with the study of Muijeen (2015) who found that depression was an important problem among elderly populations especially those concerned with their personal income. The results of the study reported that the three physical needs are the needs to have healthy food suitable for their age; followed by the need to have sufficient sleep and to have healthiness respectively. The three main mental needs for the participants were the need to have cheerful dispositions (not easily losing temper), to receive care from their children and close relatives, and to be accepted by neighbors, colleagues, and societies. The first three socioeconomic needs among the participants were the need to receive financial support from income and insurance from the government, followed by the need to receive acceptance from their children and close relatives, and the need to receive financial support from government or private sectors respectively. The results of the study were consistent with the study of Yoosabay (2012) who found that the elderly people living in Amphur Bang Sao Thong, SamutPrakarn province needed safety followed by the need for health and sanitation, recreation, education, and housing respectively. This is consistent with the study of Rodsaweang (2015), who conducted research about factors related

to dental care behavior among elderly people in Thungthonh sub-district, Nongbau district, Nakhonsawan province, and found that the elderly had a good level of dental self-care ability (X= 2.54, S.D.=0.24). She also reported that perceived benefits of dental care, perceived risk behavior, accessibility to dental care services, social support, support from friends, from health care professional and income were significantly related to dental self-care ability (r=.224, p<.010, r=.249, p<.004, r=.578, p<.001, r=.334, p<.001, r=.517, p<.001, and r=.517, p<.001 respectively). The results of the study are also consistent with the study of Chitsopakul (2014), who studied factors relating to health promotion behaviors among elderly people living in Onkkarak Distric, Nakorn Nayok Province.

However, gender was not related with perception on health status in this study. The research findings indicated that perception of one's health status reflects the capability to function in self-care and chronic condition. Participants in this study were elderly whose age over 60 year old. They gained more knowledge and experienced in living with chronic conditions. Consistent with Dorota Kaleta, Kinga Polańska, Elżbieta Dziankowska-Zaborszczyk, Wojciech Hanke, Wojciech Drygas (2009), they found that more than 30% of study subjects who were older people described their health as poor or very poor. There were no statistically significant differences between men and women regarding self-perception of health (p>0.05). Literature reviews found that individuals with lower perception on health status may more frequently use medical services and have higher absence from work as compared to those with opposite attitude towards their health(Hamilton et al., 2016). Previous researches showed that women have higher morbidity rates than men; whereas men have higher mortality rates by Oksuzyan et al. (2008). In contrast, Studying Mexican data, Parker et al. (2010) found that obese people are likely to over report their height and tend to under report

their weight. Authors also stated that a large part of the sample was not aware of their chronic diseases such as diabetes and hypertension.

7. Recommendations for further study

This research intended to study only the needs, expectations, and self-care abilities of elderly people, therefore, there should be research attempting to study the health status of every group of elderly populations including such conditions as disabilities in elderly persons and those elderly persons who are able to communicate but are unable to completely care for themselves.

There should also be a study about occupations of the elderly people who are approaching retirement or already retired as well as other aspects of needs of the elderly.

There should be a study of the relations between factors that affect the quality of life of elderly persons, such as places to exercise.

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