

# Physical, Psychosocial Determinants and Quality of Life of Elderly in the Northeast of Thailand

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## Abstract

**Background:** Rising of elderly population is one of a major public health's concerns. This research aimed to describe physical and psychosocial determinants and identify their association with Quality of Life (QOL) of the elderly population in the Northeast of Thailand.

**Method:** This cross-sectional study was conducted among 1,113 elderly, who aged 60 years old and older, were multistage random sampling from four provinces of the Northeast of Thailand to response to a structured questionnaire interview. Generalized linear mixed model (GLMM) was performed to identify the influence of physical and psychosocial determinants on QOL of elderly in the Northeast of Thailand.

**Result:** Among a total of 1,113 elderly individuals, 54.27% (95%CI: 51.29–57.22) had good QOL, follow by 45.10% (95% CI: 42.15–48.08) with moderate QOL. Factors that were associated with having good QOL among elderly population were; received highly respected as a valuable person (adj.OR= 4.23; 95%CI: 3.12-5.74), had good social support on accessibility to information (adj.OR= 3.12; 95%CI: 2.24-4.35), had no stress to minimum level of stress (adj.OR= 2.87; 95%CI: 1.92-4.27), had no physical limitation such as fall/ urinary incontinence/ constipation/ eating difficulties/ hearing/ eyesight/ mobilization/ sleeping disorders/ memory loss (adj.OR = 2.25; 95%CI: 1.66-3.06), rural residence (adj.OR= 2.00; 95%CI: 1.44-2.77), and accessibility to health care facility (adj.OR= 1.98; 95%CI: 1.48-2.70). Another significant covariate was being a younger elderly group (60-69 years old) (adj.OR= 1.84; 95%CI: 1.37-2.47).

**Conclusion:** Majority of elderly in the Northeast of Thailand had good QOL. Both physical and psychosocial determinants had influence on QOL the elderly population. Interventions on community to increasing respect as well as communication with elderly are essential especially for the older elderly groups.

**Key words:** *Elderly, Physical, Psychosocial, Quality of Life, Social Capital*

## Introduction

Thailand has been entered into society since 2000-2001 with had elderly people more than 10 percent of Thai population<sup>1</sup> Moreover, by 2023 Thailand will get into elderly society completely by having 20 percent of population are elderly people<sup>2</sup>. The Northeast of Thailand, the country's biggest region, number of elderly

people who aged 60 years and older was 3,117,763, accounting for 14.21% of the population with the ratio between elderly males and females was 1 to 1.2<sup>3</sup>. There have been various changes in term of physical, mind, and social among elderly<sup>4</sup>. Being in the elderly age, there are many challenges and problems from deterioration of both physical and psychological aspects which made them weak and ill. Health conditions observed among elderly were that only 3.3% of them had great health, 42.4% had good health, 38.3% had moderate health, 13.9% had poor health, and 2.1% had seriously ill health<sup>1</sup>. Chronic non-communicable diseases have most impact on elderly especially on burden on health care and expense.

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Physical and psychological health problems are related with quality of life (QOL)<sup>2</sup>. WHO defines QOL as an individual's perception of their position in life in the context of culture and value systems in which they live and in relation to their goals, expectations, standards and concerns<sup>5</sup>. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment<sup>6-8</sup>. Many factors were associated with QOL among middle and elderly people including personal, political, and economical factors<sup>9</sup>. In addition, social interaction, dependency problem, and health problem were considered as factors influenced on QOL<sup>10</sup>. Elderly with good connection and received well support from society<sup>11</sup> had better QOL than those with poorer supports. In addition, losing social interaction could result in social deprivation<sup>12</sup>.

At present there is no comprehensive study on the roles of physical and psychosocial determinants on QOL among elderly population especially in the Northeast of Thailand. The objective of this study describes the physical and psychosocial determinants and QOL of elderly as well as investigate the influence of physical and psychosocial determinants on QOL of elderly population in the Northeast of Thailand.

## **Material and Method**

### **Study Design**

This cross-sectional study was conducted among 1,113 elderly who were recruited by using a multistage random sampling from four provinces of the Northeast of Thailand including Khon Kaen, Udon Thani, Nakhon Ratchasima and Ubon Ratchathani provinces proportional to size of the population. The inclusion criteria were those aged 60-year-old and over, lived in Northeast of Thailand during the data collection. The elderly who critically ill were excluded from this study. A self-administered structured questionnaire consisted of 4 parts including demographic and socioeconomics, physical factors, psychosocial determinants, and QOL was used for data collection.

## **Data Analysis**

A simple logistic regression was used to identify association of each independent variable with QOL. The independent factors that had  $p$ -value  $< 0.25$  were processed to the multivariable analysis using the generalized linear mixed model (GLMM) to identify the association between physical and psychosocial determinants, and QOL when controlling the effect of other covariates, of which 4 provinces were selected to include as random effects. The magnitude of association was presented as adjusted odds ratio (adj. OR), 95% confidence interval (CI) and  $p$ -value  $< 0.05$  as statistically significant level.

## **Results**

Among the total of 1,113 elderly, 54% were females with the average age of 70.23 ( $\pm 7.55$ ) old. Most of them finished primary education (88.41%), and 63.97% were married. Almost all lived with others (92%). The median monthly income was 2000 (600:50,000) Baht, of which majority relied on monthly government welfare and had not enough income. More than one-third did not work whereas more than 60% reported that they need to work.

In term of physical determinants, almost half of participants were overweight and obesity (46.35%), and 43.31% had chronic disease. The most common chronic diseases suffering they were hypertension (30.55%), and type 2 diabetes (16.62%). Almost all could perform daily functions dependently. More than a quarter having difficulties of eyesight (27.67%) followed by eating difficulties (19.68%), memory loss (19.41%), and sleeping disorder (19.04%). Concerning psychosocial determinants most of them had no and minimum stress (81.40%), and no and minimal depression (82.39%). Most of them received average to high levels of social support. Only 3.23% reflex inconvenience in travelling to health care facilities. About three quarters had family member accompanied them to health facilities, and 63.25% were satisfied with health services. More than half of the participants had good QOL, followed by fair level (Table 1).

**Table 1. Number and percentage of quality of life (QOL) among participants in the Northeast of Thailand (n=1,113)**

QOL Level	Number	Percent	95%CI
Poor	7	0.63	00.25 - 1.29
Fair	502	45.10	42.15 - 48.08
Good	604	54.27	51.29 - 57.22

The GLMM indicated factors associated with having good QOL among elderly population. These factors were; highly respected and admiration, had good level of accessibility to information, had no stress to minimum level of stress, had no physical difficulties (fall/ urinary incontinence/ constipation/ eating difficulties/ hearing/ eyesight/ mobilization/ sleeping disorders/ memory loss), lived in rural areas, convenience in traveling to health care facilities and younger elderly group (60-69 years old) when controlling the effect of provinces and other covariates including sex, occupation, health behaviors, chronic disease, depression, health insurance. (Table 2)

**Table 2. Multivariable analysis of factors associated with good quality of life among elderly in the Northeast of Thailand, by using the GLMM model presenting odds ratios, adjusted odds ratios, 95%CI and P-value (n=1,113)**

Factors	Number	% Good QOL	OR	adj.OR	95%CI	P-value
Respected and admiration by society						<0.001
Poor to fair	439	33.45	1	1		
High	674	74.82	5.91	4.23	3.12-5.74	
Accessibility to information						<0.001
Poor to average	378	29.63	1	1		
Good	735	66.94	4.81	3.12	2.24-4.35	
Stress problem						<0.001
Yes	207	26.09	1	1		
No	906	60.71	4.37	2.87	1.92-4.27	
Elderly Problems: fall/ urinary incontinence/ constipation/ eating difficulties/ hearing/ eyesight / mobilization / sleeping disorders / memory loss						<0.001
Yes	540	42.21	1	1		
No	573	63.68	2.21	2.25	1.66-3.06	
Residence						<0.001
Urban	429	45.92	1	1		
Rural	684	59.50	1.73	2.00	1.44-2.77	
Convenience in travelling to health facility						<0.001
No	458	39.08	1	1		
Yes	655	64.89	2.88	1.98	1.48-2.70	
Age (years)						
≥70	525	47.43	1	1		<0.001
60 – 69	588	60.37	1.68	1.84	1.37-2.47	

## Discussion

Majority of elderly participants of this study had good QOL (54.27%). This finding is in line with the result of other studies on QOL among elderly which reported that 60.37% of primary elderly age (60-69 years old) had good QOL while 47.43% of middle elderly (70-79 years old) and lately elderly (80 and over) (47.43%) had good QOL<sup>13,14</sup>. The possible reasons that could explain these situations were that the elderly aged 60-69 years old still perform normal physical functions therefore they were more likely to satisfy with their life than the older elderly who suffered physical limitations<sup>15-17</sup>. When the elderly had health problems, most of them were irritated and sorrowful that lead to stress therefore, caring from people surrounding them can make them feel better. This study observed that being admired and considered as valuable person were strongly associated with having good QOL among elderly in the Northeast of Thailand. It was similar with the result from other studies which expressed that supporting from society is one of the forces that had impact on QOL of the elderly<sup>18, 19</sup>. In addition, elderly need supports to be able to self-reliance when having health problems<sup>20</sup>. Elderly who lived in warm family with love care, respect, and help from family members made them had better life satisfaction which resulted in good QOL<sup>21</sup>. The context of Thailand, taking care elderly who are parents or grandparents is considered as gratitude behavior<sup>22</sup>. Therefore, the elderly was satisfied. In addition the long term care for elderly is one of an importance strategy of the Ministry of Public Health Thailand, in the preparation to be readiness for the elderly society, involving collaboration of various sectors of society<sup>18,23</sup>. Supporting elderly to access the information in their societies had influenced on their QOL as well. Elderly who could access to information have better opportunity to access to public welfare, joining events as well as health care, minimized misunderstanding on information which have impact to both their physical and psycho social health<sup>24</sup>. In addition power of information could make them have more confidence in travelling to various places as well as health facility<sup>18</sup>. No and minimal levels were associated with having good QOL of elderly people. This result was supported by previous studied which stated that having good mood had effect on elderly mind<sup>15</sup> and mental health is main factor that had impact on elderly's QOL<sup>25,26</sup>

The Northeast of Thailand is the region that the working age population migrated to work in Bangkok and other regions sending money home for their parents. Many elderlies had children who were working in various urban settings to earn money to support family especially their parent who mostly lived in rural areas. The elderly who lived in rural settings with the support from the other family members and communities as well as lifestyle and culture of caring and sharing could enjoy their life better than those lived in urban settings resulted in better QOL<sup>18</sup>.

## Conclusion

More than half of elderly population in the Northeast of Thailand had good QOL. Both physical and psychosocial determinants were associated with QOL among these elderly population. Social interventions to improve respect as well as communication with elderly are essential especially for older elderly group.

**Ethical Clearance-** Taken from the Ethics Committee of Khon Kaen University, based on the Declaration of Helsinki and Good Clinical Practice Guidelines (ICH GCP) No. HE612119.

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