THE IMPACT OF HEALTH FACTORS ON FINANCIAL SECURITY AMONG THE THAI ELDERLY: IN 2002 AND 2007

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ABSTRACT: As sharp declining in fertility together with rising life expectancies, Thailand rapidly becomes an aging society without preparing financial support. The elderly need financial security to ensure their living. This study aims to explore factors affecting financial security among the Thai elderly, measured by the official poverty line (10,000 Baht in 2002 and 20,000 Baht in 2007). The data were derived from the 2002 and the 2007 National Survey of the Older Persons in Thailand. Results showed that the elderly, in general, had more financial security while some subgroups had less economic security, such as female, oldest old, attained less than primary school, not living in Bangkok, offspring giving care for daily living. Interestingly, health factors were in terms of self reported health status, physical functionality, and chronic disease, they were important factors affecting financial security of the elderly. The findings suggest that the elderly's health affected their financial security due to declining physical health with older age. Thus the elderly should prepare specific financial and health self support as well as family support. The government should design employment policies for the elderly to support themselves and policies to support the oldest old (80 years and over) and poor health who are economically vulnerable.

Keywords: Thai elderly/ the poverty line/ financial security/ health factors

INTRODUCTION

Aging causes a change and decline in physical and psychological endeavors, including economic status of people. Older persons usually undergo various illnesses and diseases, such as arthritis, hypertension, and diabetes. The previous study of the Health System Research Institute viewed that elderly people in Thailand have been increasingly afflicted by chronic conditions and disabilities [1]. Similarly to the study of Porrapakkam Y, Punyaratabandhu P showed that 74.3 per cent of Thai elderly had at least one chronic illness and that most of them suffered from many chronic illnesses simultaneously [2]. The Government of Thailand will shoulder a heavier burden in providing appropriate health services for people, regarding the ones with serious ailments. This health condition of older people affects not their family's financial resources but also the national economy.

In Thailand, "financial security" of the elderly is the important issue. Income is an important indicator in living. Thus, income is interesting representative to measure financial security of human. The average annual income of old people was about 29,000 Baht (US$1= about 30 Baht), and the median annual income was about 10,000 Baht. One third of older persons had an average annual income less than 5,000 Baht, or less than the median annual income of the Thai elderly population in general and well below the poverty line [3].

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So far, few studies about financial security have been done. The study has yet considered the determinants on financial security of the Thai elderly in 2002 and 2007. It becomes crucial to test these phenomena with regard to financial security of the elderly and the results of the study will provide important information for policy makers in order to improve the well-being of the Thai elderly.

RESEARCH OBJECTIVES

This study aimed to explore determinants of financial security among the Thai elderly in 2002 and 2007.

THEORETICAL CONSIDERATIONS

Financial security is the condition of having stable income of other resources, such as paid employment, government allowance, or offspring to support a standard of living now and in the foreseeable future. It includes probable continued solvency, predictability of the future cash flow of a person or other economic entity, such as a country, and employment security or job security. Moreover, in Thai society financial security of people over 60 years old is based on financial security benefits, pensions and savings, earnings and employment, and health insurance coverage [4]. Financial security is also related to the safety, well-being, and self sufficiency of living. This study employed poverty line as measurement of financial security by considering the income that samples received, a variable expressing financial security or vulnerability.

CONCEPTUAL FRAMEWORK

From the theoretical considerations, the conceptual framework showed income to measure the financial security as dependent variable of this study. Socio-demographic characteristics (sex, age, marital status, education, paid working, occupation, work status, residential area), health status (active of daily living, function limitation, self-perceived health) and supportive resources (living arrangement, receiving financial support) were independent variables affecting the financial security of the elderly.

Two hypotheses can be drawn from theoretical considerations: 1) the healthy elderly have better chance of financial security than those with poor health, and 2) the elderly with good support have better chance of financial security than those with poor support.

METHODOLOGY

The 2002 and 2007 Survey of the Older Persons in Thailand was conducted by the National Statistical Office (NSO), Thailand. A stratified two-stage sampling was employed to produce nationally and regionally representative samples. Seventy-six provinces in five regions (the north, northeast, central and south), including Bangkok were allocated to the stratum, each of which was divided in municipal and non-municipal areas, according to administrative classification. There were altogether 19,602 in 2002 and 22,819 in 2007 samples as the people aged 60 years and over.

MEASUREMENT OF VARIABLES

Dependent variables: the annual income was based on the poverty line (10,000 Baht/ 333.333 US$ in 2002, and 20,000 Baht/ 571.43 US$ in 2007). This variable was coded as financial security (the higher than poverty line and financial insecurity (the lower than poverty line).

Independent variables: health factors, such as self reported health status, sickness, physical functionality (limitation of physical function at least one and more, such as eating, dressing, and taking a bath), abilities of daily living (ADL) (limitation of standing up/ sitting down, carrying things 5 kg., walking 1 km., travelling by bus/ ship alone at least one and more), chronic disease (having chronic disease, such as hypertension, cannot control urination, diabetes, cancer, hemiplegic, and paralysis at least one and more).

Statistical analysis: the dependent variable of this study is financial security that is a dichotomous variable, binary logistic regression is used for making predictions of determinants on financial security among the Thai elderly. A number of independent variables and other variables are included in the regression model to examine any factors affecting changing of financial security on the elderly and adding health status variables are expected that they are likely to influence on financial security on Thai elderly also.

RESULTS

The results showed that all of the control variables are examined in the first model of the 2002 as shown Table 1. It was found that the male elderly who aged 60 - 69 years, and 70 - 79 years, attained higher education, and spouse giving care for daily living were more likely to have financial security than those who were not. The elderly living in non municipal area, in the north, the northeast, and the south of Thailand and offspring giving care for daily living were less likely to have financial security than those who were not. When health factors was added in the model, the significant relationship of offspring giving care of daily living was appeared, while the effect of the other control variables remained the same. The second model of 2002 showed that health factors have a significant association with the elderly financial security. The elderly who were good health, not limited physical functionality, not have chronic disease were more likely to have financial security than the poor health elderly, limited physical functionality, without chronic disease.

Similarly the 2002 findings, the 2007 model found that the male elderly, younger old age, getting higher education, and offspring giving care for daily living were more likely to have financial security than those who were not. When health factors was added in the model, the significant relationship of the elderly aged 70-79 years and offspring giving care of daily living were disappeared, while the effect of other control variables remained the same. The second model of 2007 showed that health factors have a significant association with the elderly financial security was similar to the 2002 results. The elderly who were good health, not limited physical functionality, not have chronic disease were more likely to have financial security than the poor health elderly, limited physical functionality, without chronic disease. Health status of the elderly is the important factor affecting the financial security of the elderly.

DISCUSSION

This study explored determinants of financial security among the Thai elderly in 2002 and 2007. Socio-economic transformation and depressed economic worldwide were also responsible for the determinants of financial security of the Thai elderly revealed a strong relation to socio-demographic factors i.e. age, sex, education, area of residence, and region. Health factors i.e. self-reported health status, limitation of physical function, chronic disease in both 2002 and 2007 had an impact on financial security among the Thai elderly's living arrangements and care given for their

Table 1 Odds ratio of financial security among the Thai elderly in 2002 and 2007

Variables	2002				2007			
	Model 1		Model 2		Model 1		Model 2	
Socio-demographic characteristics								
Male	1.297	(0.033)***	1.193	(0.034)***	1.436	(0.028)***	1.315	(0.029)***
Age (80 years and over: ref)								
70-79 years	1.546	(0.056)***	1.409	(0.057)***	1.166	(0.048)**	1.047	(0.050)
60-69 year	2.757	(0.054) ***	2.193	(0.057)***	2.092	(0.048)***	1.624	(0.051)***
Education (Less than primary: ref)								
Primary school	1.636	(0.038)***	1.572	(0.039)***	1.666	(0.036)***	1.630	(0.037)***
Secondary/higher	5.735	(0.109)***	5.059	(0.011)***	2.412	(0.053)***	2.298	(0.054)***
Non municipal area	0.513	(0.042)***	0.516	(0.042)***	0.703	(0.035)***	0.702	(0.036)***
Region (Bangkok: ref)								
Central (exclude BKK)	0.990	(0.078)	0.980	(0.078)	0.544	(0.074)***	0.585	(0.075)***
North	0.426	(0.078)***	0.418	(0.079)***	0.241	(0.075)***	0.252	(0.075)***
East/ North	0.326	(0.077)***	0.772	(0.085)**	0.281	(0.074)***	0.287	(0.074)***
South	0.793	(0.085)**	0.772	(0.085)**	0.410	(0.078)***	0.429	(0.079)***
Living arrangement (Living with non-relatives: ref)								
Living alone	1.013	(0.091)	1.033	(0.078)	0.141	(0.219)***	0.136	(0.222)***
Living with spouse	1.035	(0.081)	0.999	(0.065)	0.245	(0.217)***	0.237	(0.220)***
Living with offspring/ in-law	1.003	(0.072)	1.002	(0.086)	0.275	(0.215)***	0.267	(0.218)***
Living with relatives	1.022	(0.092)	0.990	(0.092)	0.234	(0.218)***	0.228	(0.221)***
Care giving (others: ref)								
Spouse	1.387	(0.088)***	1.199	(0.090)*	0.991	(0.133)	1.167	(0.136)
Offspring	0.610	(0.052)***	1.175	(0.035)***	1.348	(0.121)*	1.557	(0.124)
Relatives	0.840	(0.115)	0.775	(0.118)*	0.422	(0.218)***	0.533	(0.219)**
Own	-----	-----	-----	-----	1.628	(0.112)	1.544	(0.113)***
Health factors								
Good health status			1.698	(0.034)***			1.482	(0.029)***
Not sick			1.005	(0.035)			1.034	(0.029)
No limitation of Activities of daily living (ADL)			1.042	(0.062)			0.976	(0.071)
No physical functional Limitation			1.294	(0.035)***			1.436	(0.035)***
No chronic disease			1.186	(0.054)**			1.103	(0.034)**
-2Log likelihood	**25028.163**		**24618.467**		**32824.976**		**32431.580**	
df	**17**		**22**		**18**		**23**	
R^2	**0.190**		**0.212**		**0.151**		**0.168**	

Note: *P< 0.05, **P< 0.01, ***P<0.001, ® is reference groups.

daily activities. Most of the other family members had to shoulder burden until they could not support them anymore [2, 5]. The findings showed that the elderly who were able to hire nurse/ servants to look after them still tended to have financial security.

Especially, health status of the elderly is related to their financial security, since aging inevitably causes declining physical capacities, resulting in physical functional limitations, chronic diseases, and poor health. Poor health required high cost for treatment. The results above were similar to findings of the study of Chayovan [3], which showed that Thai older women were among the most economically vulnerable and they were stricken with poor health.

This study also revealed that the elderly had poor health and limitations of physical function and chronic disease affecting their financial security. The studies [2, 6-7] found the older persons' economic vulnerability was often triggered poor health. When their physical system could not function normally as usual, the elderly had to meet additional expense for taking better care of themselves and other health care services. The burdens associated with poor health varied considerably depending on several other factors, including absence of a spouse or support from other family members.

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