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A study of elderly welfare by comparing private and public retirement homes: A case study in Bangkok

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Abstract: This study assessed the subjective well-being (SWB), or welfare, of the elderly in retirement homes in Bangkok, and examined related factors, particularly from the perspective of happiness economics, since the empirical evidence in this aspect is still limited. Primary data was collected by distributing questionnaires and carrying out in-depth interviews between August 2017 and November 2017. In total, 120 participants were included, of which 60 persons were from public retirement homes (44 women and 16 men) and 60 persons from private retirement homes (40 women and 20 men). The cross-sectional data were analyzed using standard descriptive statistics and estimations of logit regressions. The logit regression results reveal that the following were positively related with SWB/welfare in all regressions as hypothesized: a short distance between the retirement home and a temple/hospital, a retirement home located in the participant's hometown, and interest in obtaining free college courses. Meanwhile, the coefficients on the need for a higher number of care staff were negative. Among the control variables, being female, being older, completing secondary school, and having plenty of money to spend were strongly and positively associated with SWB/welfare. It was noteworthy that receiving a total Barthel ADL index scores of more than 10 and having family and friends visit regularly (once or a few times a week) played an important role in increasing participants' SWB/welfare in both public and private retirement homes.

JEL Classifications: D12, I31

Keywords: Subjective well-being, welfare, retirement home, health economics, happiness economics
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1. Introduction

Population aging has become a well-publicized phenomenon and public concern in Thailand. The number of elderly in Thailand has developed quickly and will continue to do so in future decades. The number of elderly has increased sevenfold, from nearly 1.5 million in 1960 to 10.7 million (or 16% of the total population) by 2015. The number of elderly is projected to increase more rapidly to over 20 million by 2035. Thereafter, they will constitute more than 30% of the population. Furthermore, in the next couple of years, the number of elderly will be higher than the number of children below the age of 15 for the first time in Thai history.

Retirement homes are still relatively new in Thailand because it is still more common for the elderly to be taken care of within their own home. This is mainly due to Thai culture, where the elderly are traditionally taken care of by members of their family. However, how long this can be upheld remains unknown, especially given the questions posed by declining family size, children moving farther away, and lengthened life expectancy after reaching old age. It is concerning that economic development may weaken the strong

cultural bonds, as individuals may have become more invested in fulfilling their own needs rather than their family's needs (Croll, 2006).

In both the government and private sector, the numbers of purpose-built retirement homes are rising in order to prepare for the increasing number of elderly. This study not only expects to assist those operating the new buildings but also help existing retirement homes to understand and meet the needs of the elderly.

To clarify the terms used in this study, it should be stated that a retirement home is a multi-residence housing facility intended for the elderly. Each person or couple in the home has their own apartment-style room or suite. Additional facilities are provided, including meals, meeting places, recreation activities, and some form of health or hospice care. A public retirement home is a facility which provides care for elderly people and is supported by the government, whereas a private retirement home is a place provided by the private sector. Subjective well-being (SWB) means life satisfaction, the presence of positive mood, and the absence of negative mood, which can be summarized as happiness (Ryan & Deci, 2001). In this study, subjective well-being (SWB) is used interchangeably with welfare. An elderly person is defined as a person who is aged 60 or over.

1.1. Objectives

This study compared the subjective well-being (SWB) or welfare of the elderly in retirement homes in Bangkok, Thailand. It examined related factors, particularly from the perspective of happiness economics since the empirical evidence in this aspect is still limited.

1.2. Contribution

This study contributed to the existing body of literature on Thailand's aging population with regard to the subjective well-being (SWB) or welfare of the elderly, with a specific focus on a subpopulation that is less frequently studied. No studies appear to have investigated need variables such as the distance between a retirement home and the nearest temple/hospital, the significance of staying in a retirement home located in a person's hometown; or interest in free study courses offered by local institutions, and whether such need variables are potential predictors of SWB/welfare among elderly people living in private and public retirement homes.

2. Methods

Since there is no available data which documents the number of retirement homes in Thailand, this study gathered information about the number of existing retirement homes from the relevant government department and private agencies, and by studying the telephone directory, newspapers, and websites. It was found that there were 138 retirement homes in Thailand. Nearly half (49.3%, n=68) were located in Bangkok, 30.4% (n=42) were in the central part of Thailand, 16.7% (n=23) in the North and only 3.6% (n=5) in the South (Sasat et al., 2013).

2.1. Research instruments

This study used both primary data and a questionnaire as the research instrument. The questionnaire was comprised of four parts. The sociodemographic questions comprised the first part, followed by enabling factors in the second part, and need variables questions in the third part. With regard to the need variables questions, the reasons for their answers were also recorded by performing in-depth interviews to capture participants' attitudes and perspectives. The final part was based on subjective well-being/welfare. The inclusion criterion was that the persons taking part must have been retirement home residents aged 60 or over at the time of the study. The only exclusion criterion was difficulties in conversing with the research assistant. This implies that persons with obvious cognitive impairments were excluded.

2.2. Sampling procedures

The study was carried out in Bangkok, Thailand, because nearly half of the retirement homes in Thailand were located there. Participating retirement homes were chosen based on a stratified distribution according to representative classifications regarding population density. Due to the limitations of time and budgets, only four retirement homes (two from the public sector and two from the private sector) in Bangkok were included. All of the participants completed the same questionnaire. In the retirement homes chosen according to representative classifications regarding population density, selection of participants was carried out randomly. The members of care staff in each of the retirement homes were asked to identify elderly residents who met the inclusion criteria.

2.3. Participants

The actual sample was comprised of 120 individuals in total, split equally between public and private retirement homes. The questionnaires were distributed until 120 questionnaires had been satisfactorily completed. However, the actual number of people who attempted to complete the questionnaire was 147. In six questionnaires, data collection was not completed because of fatigue in the respondents, reducing the number of completed questionnaires to 141. In addition, all participants with missing data were excluded from the analysis, leaving a total sample of 120 persons. 60 persons from public retirement homes (44 women and 16 men) and 60 persons from private retirement homes (40 women and 20 men).

2.4. Data collection

Data collection took place in the retirement homes and was performed by research assistants who had no previous knowledge of the participants. The research assistants helped the participants to fill in their answers on the questionnaire forms and respond to the questions during the in-depth interviews. The data collection lasted about 90 minutes. Some data collection was carried out over two or more sessions because of fatigue in the participants. Data were collected between August 2017 and November 2017.

2.5. Data analysis

Descriptive analyses and an econometric model were employed with the quantitative data. A descriptive statistical technique was used, in which numerical data were organized and summarized to describe important features. Logit regression was applied to analyze the results of the study.

$$P(Y_i > j) = \frac{\exp(\alpha_j + X_i\beta_j)}{1 + [\exp(\alpha_j + X_i\beta_j)]}, j = 1,2,\dots,M-1 \quad (1)$$

Where, i is elderly questionnaire respondent (i = 1,2,…,N), M is levels of subjective well-being or welfare, Xi is vectors of independent variables (quantitative and/or dummy variables), β is vectors of coefficients of independent variables.

2.6. Outcome variable

Subjective well-being (SWB) is typically measured through a self-report questionnaire, such as the World Values Survey (using a single-item survey) and the General Health Questionnaire (GHQ) (using a multiple-item survey). When compared to a single-item survey, a multi-item survey is much more reliable and less volatile. For example, in a case where a respondent misinterprets one question in a multi-item survey, it does not affect the whole evaluation. This is because it is part of a combination of questions chosen to represent a particular attribute. As a consequence of this enhanced reliability, a multi-item survey is a better benchmark than a single-item survey (Powdthavee, 2007).

The Thai Mental Health Indicator (TMHI-15) was employed as a dependent variable to observe participants' subjective well-being or welfare. The difference between the GHQ (Thai version) and the TMHI is that the GHQ (Thai version) has been adapted for use in Thailand; however, the TMHI has been created specifically for Thai respondents. The Department of Mental Health (Ministry of Public Health, Thailand) has developed an indicator to assess Thai mental health. In this context, mental health means a happy life, which results from the ability to solve problems in life and the capability to improve oneself to have a good quality of life. This includes having a good mindset to cope with the current changes in society and its environment (Mongkol et al., 2009). The Thai Mental Health Indicator (TMHI) is a questionnaire which contains multi-item scaled questions. The latest TMHI is version 2007. This TMHI version has improved content validity and construct reliability, and is available as both a full version and a short version. The full version (TMHI-55) contains 55 items and the short version (TMHI-15) contains 15 items. Both versions are guaranteed to be comparable with regard to their results. A substantial agreement is found between the full version and the short version of the TMHI (Kappa statistics 0.66, $p < 0.001$). The TMHI items are evaluated according to a four-point Likert scale. The questionnaire asks respondents to consider their mental health over the past month. The scores for the TMHI-55 are divided into three groups: better than average mental health (179-220), average mental health (158-178), and below average mental health (≤ 157). The scaled-down TMHI-15 scores are also divided into the same three groups: better than average mental health (51-60), average mental health (44-

50), and below average mental health (≤ 43). Since the dependent variable is measured on an ordinal scale, one aims to estimate an ordered logit regression.

For an ordered logit model to be valid, a proportional odds assumption (which means that the distance between each category should be equivalent) needs to be tested. After diagnostic testing, the ordered logit model violated the proportional odds assumption. Subsequently, this study solved the problem by combining the TMHI-15 score bands and creating two new groups: 1) high TMHI, which included participants' whose scores were better than average mental health (51-60), and 2) low TMHI, which included participants' whose scores were average mental health (44-50) and below average mental health (≤ 43). Therefore, the logit model could now be applied. The dummy variable was applied as 1 if high TMHI and 0 if low TMHI.

2.7. Explanatory variables

Based on the SWB determinants in the happiness economics literature which had been adapted to suit the objective of this study, the independent variables were classified according to four main groups: sociodemographic factors (gender, age, marital status, and education), aspects of health (Barthel ADL index), enabling factors (economic status, and family &friends) and need variables (the need for more care staff, distance between the retirement home and a temple, distance between the retirement home and a hospital, a retirement home located in the respondent's hometown, and interest in free study courses which are offered. The included determinants are explained in Table 1 below.

TABLE 1. TABLE OF EXPLANATORY VARIABLES

DETERMINANT	INDICATOR	JUSTIFICATION	EXPECTED SIGN
SOCIO-DEMOGRAPHIC FACTORS			
Gender	Dummy variable (1 if female and 0 if male)	Gender is a fundamental determinant in happiness studies. Almost all of the empirical studies include gender as one of the determinants, for example, Frey & Stutzer (2002) and Diener (2009). The results in the literature are ambiguous.	(+)/(-)
Age	Years	Blanchflower & Oswald (2000), Frey & Stutzer (2002), and Easterlin (2006) find that age has a U-shaped relationship in a sense that the young and the old appear to be happier than the middle aged (between about 32 and 50 years).	(+)
Marital status	Dummy variable (1 if married and 0 if otherwise)	Literatures show that marriage has a positive relationship with SWB (Blanchflower & Oswald 2004; Frey & Stutzer 2002; Helliwell, 2003)	(+)
Education	Dummy variable (1 if completed secondary school and 0 if otherwise)	Education is a fundamental determinant in happiness studies, which many studies refer to, for example, Frey & Stutzer (2002); Blanchflower & Oswald (2004). Education is expected to be positively correlated with SWB. However, the results in the literature are still ambiguous.	(+)
ASPECTS OF HEALTH			
Barthel ADL index	Dummy variable (1 if total scores more than 10 and 0 if otherwise)	The Barthel Activities of Daily Living (ADL) index (Mahoney & Barthel, 1965) was used to measure functional impairment in ADL, and scored as recommended by Wade & Collin (1988). The instrument includes 10 basic functions: bowel and bladder functioning, feeding, grooming, dressing, transfer from bed to chair, toilet use, mobility, walking stairs and bathing. The total score	(+)

TABLE 1. TABLE OF EXPLANATORY VARIABLES

DETERMINANT	INDICATOR	JUSTIFICATION	EXPECTED SIGN
		ranges from 0 (dependent in all functions) to 20 (independent in all functions). The Barthel ADL-index is a widely used and a standard measure of ADL functioning (Collin et al., 1988; Wade & Collin, 1988). In the study reported here, the Cronbach's alpha was 0.83.	
ENABLING FACTORS			
Economic status	Dummy variable (1 if yes and 0 if no)	The participant's economic status was recorded by the question 'In general, do you have so much money that now and then you can buy something extra?' It is to observe the feeling of participants that have plenty of money to spend on things they want.	(+)
Family &friends	Dummy variable (1 if yes and 0 if no)	Frequency of family members and close friends visits per week, investigated by the question 'In general, do your family members and close friends come to visit you once or few times a week?'	(+)
NEED VARIABLES			
More care staff	Dummy variable (1 if yes and 0 if no)	Sufficient care staffs for residents was questioned. The participant's need of more number of care staffs was recorded by the question 'In general, do you require the increase in number of care staffs?'	(-)
Distance between the retirement home and a temple	Dummy variable (1 if yes and 0 if no)	As a temple is a component of the community and plays an important role in the cultural life of Buddhists, it is interesting to observe whether the distance between a temple and the retirement home affect the participant's SWB/welfare. It was investigated by the question 'Do you think the retirement home is near a temple enough?'	(+)
Distance between the retirement home and a hospital	Dummy variable (1 if yes and 0 if no)	The elderly uses hospitals more than younger patients. Distance between the retirement home and a hospital should be one of the important factors affecting participant's SWB/welfare 'Do you think the retirement home is closed to the hospital enough?'	(+)
A retirement home located in the respondent's hometown	Dummy variable (1 if yes and 0 if no)	Ideally, each village and towns should have each its particular character. Tradition, practical wisdom, environment, and culture should make it worth it to live in hometown. This factor is investigated by question 'Is the retirement home located in your hometown?'	(+)
Interest in free study courses	Dummy variable (1 if yes and 0 if no)	Education is lifelong learning. To be more responsive to the needs of older people within a retirement home, the preferences of obtaining free college courses was recorded by the question 'In general, do you prefer to take a free course offering by a college?'	(+)

Source: Author's elaboration.

3. Results

The total response rate was 81.6%, which is considered to be reasonably high in such a vulnerable population. To measure the SWB/welfare of the elderly respondents, the multi-item scales of the 15-item TMHI were used and the results revealed that 16.67% of participants in public retirement homes had high TMHI scores, whereas 83.33% had low TMHI scores. Meanwhile, 35% of the participants' in private retirement homes had high TMHI scores, while 65% had low TMHI scores. Most of the participants' in both public and private retirement homes had low TMHI scores. It can be pointed out that there were

twice as many participants in private retirement homes who had high TMHI scores when compared to participants in public retirement homes (Table 2).

TABLE 2. SWB AS ASSESSED BY APPLYING MULTI-ITEM SCALES (TMHI)

	PUBLIC RETIREMENT HOMES	PRIVATE RETIREMENT HOMES
	Percent	Percent
High TMHI scores	16.67	35
Low TMHI scores	83.33	65
	100	100

Source: Author.

The results from summary and descriptive statistics showed that the 60 participants from the public retirement homes (public RHs) consisted of 44 women and 16 men, whereas the 60 participants from private retirement homes (private RHs) consisted of 40 women and 20 men. It can be seen that most of the participants were female. The mean age was 69.23 years (ages ranged from 60-81) in public RHs, compared to 68.95 years (ages ranged from 60-81) in private RHs. In public RHs, 41.67% of the participants were married, which was 13.34% higher than among the participants in private RHs. In total, 40% of the participants in public RHs had completed secondary school, which was about 12% less than the participants in private RHs (51.67%). With regards to aspects of health, the Barthel Activities of Daily Living (ADL) index showed that 80% and 75% of the participants were independent in all ADL functions, in public RHs and in private RHs respectively. Therefore, it can be stated that most of the participants were independent in all ADL functions. About half of the participants in private RHs (53.33%) felt that they had plenty of money to spend on things they wanted. This figure was 25% higher than among the participants in public RHs (28.33%). Family and friends tended to visit the participants in public RHs once a week or a few times a week (68.33%). This figure was 15% higher than in private RHs (53.33%). Only 7% of the participants in private RHs felt that their retirement home needed more care staff, compared to 15% in public RHs. About 17% of the participants in private RHs considered their retirement home to be near enough to a temple. Likewise, 12% of respondents in public RHs felt similarly. In both public and private RHs, 55% of the participants believed that the retirement home was close enough to a hospital. With regard to location, 5% of the participants in private RHs and 17% of the participants in public RHs revealed that their retirement home was located in their hometown. Furthermore, 28% of respondents in public RHs would like to take a free course offered by a college, which was 15% higher than among those in private RHs (13%).

The correlation matrix of independent variables (Table 3) was checked and it was found that there were no variable pairs that had high correlations or correlations higher than |0.4| (Gujarati, 2004). The logit regression was then applied. First, a base model was estimated, in which SWB/welfare was regressed on standard controls only (models 1 and 2). Second, need variables were included as additional independent variables (models 3 and 4). To clarify, models 1 and 3 were estimated by using the participants in public retirement homes, while models 2 and 4 were estimated by using the participants in private retirement homes.

TABLE 3. SUMMARY AND DESCRIPTIVE STATISTICS OF IMPORTANT VARIABLES IN THE MODEL

	PUBLIC RETIREMENT HOMES				PRIVATE RETIREMENT HOMES			
VARIABLE	MEAN	STD. DEV.	MIN	MAX	MEAN	STD. DEV.	MIN	MAX
Gender	0.73	0.45	0.00	1.00	0.67	0.48	0.00	1.00
Age	69.23	6.14	60	81	68.95	5.50	60	81
Marital status	0.42	0.50	0.00	1.00	0.28	0.45	0.00	1.00
Education	0.40	0.49	0.00	1.00	0.52	0.50	0.00	1.00
Barthel ADL	0.80	0.40	0.00	1.00	0.75	0.44	0.00	1.00
Economic status	0.28	0.45	0.00	1.00	0.53	0.50	0.00	1.00
Family &friends	0.68	0.47	0.00	1.00	0.53	0.50	0.00	1.00
More care staff	0.15	0.36	0.00	1.00	0.07	0.25	0.00	1.00
Distance Temple	0.12	0.32	0.00	1.00	0.17	0.38	0.00	1.00
Distance Hospital	0.55	0.50	0.00	1.00	0.55	0.50	0.00	1.00
Hometown location	0.17	0.38	0.00	1.00	0.05	0.22	0.00	1.00
Free study courses	0.28	0.45	0.00	1.00	0.13	0.34	0.00	1.00

Source: Author.

The results for all the models were reported as marginal effects, shown in Table 4. According to Table 4, the results of the logit regression showed that the relationship between being female and SWB/welfare was positive and statistically significant in the case of private RHs, as model 2 showed that being female increased the probability of falling into the "high TMHI" bracket by 36.2%. Similarly, model 4 revealed that being female raised the probability of recording a "high TMHI" by 37.4%. The results also revealed that age had a positive relationship with SWB/welfare for participants in private RHs. Being married increased the SWB/welfare of the participants, yet the results were not statistically significant. Education was positively related to SWB/welfare and was statistically significant in the cases of models 1 and 2. In other words, the participants in public RHs who had completed secondary school had higher levels of SWB/welfare. There was a strong and positive relationship between the Barthel ADL index and participants' SWB/welfare. It can be interpreted that in both public and private RHs, the participants who had total Barthel ADL index scores of more than 10 had higher SWB/welfare. Participants with a feeling of having plenty of money to spend on things they want exhibited increased SWB/welfare. These results were only statistically significant in the case of participants living in private retirement homes. Having family and friends visit frequently increased the participants' SWB/welfare significantly in all regressions. The need for a higher number of care staff decreased the levels of SWB/welfare with statistical significance, especially in the case of participants living in public retirement homes. A short distance between the retirement home and a temple was strongly and positively related to SWB/welfare in all regressions. Also, the coefficients of the short distance between the retirement home and a hospital were positive and statistically significant in all regressions. The retirement homes located in participants' hometowns raised the probability of recording a "high TMHI" by 31.1% and 28.8%, for participants' in public RHs and private RHs respectively. The results revealed a positive and statistically significant relationship between interest in obtaining free college courses and SWB/welfare in all regressions.

TABLE 4. LOGIT REGRESSION

	Public RHs	Private RHs	Public RHs	Private RHs
	Marginal Effect	Marginal Effect	Marginal Effect	Marginal Effect
	dy/dx	dy/dx	dy/dx	dy/dx
VARIABLES	Model 1	Model 2	Model 3	Model 4
Gender	0.0941	0.362***	0.126	0.374***
	(0.113)	(0.113)	(0.117)	(0.136)
Age	0.00684	0.0215*	0.000983	0.0174*
	(0.00770)	(0.0121)	(0.00397)	(0.0119)
Marital status	0.00400	0.127	0.0968	0.281
	(0.0970)	(0.165)	(0.0963)	(0.216)
Education	0.145*	0.0500	0.0925*	0.149
	(0.102)	(0.138)	(0.0944)	(0.189)
Barthel ADL	0.115*	0.266**	0.0452*	0.239**
	(0.0790)	(0.115)	(0.0416)	(0.113)
Economic status	0.0842	0.103*	0.156	0.226*
	(0.106)	(0.131)	(0.140)	(0.133)
Family &friends	0.0396*	0.166*	0.0527*	0.143*
	(0.116)	(0.139)	(0.0484)	(0.162)
More care staff			-0.0297*	-0.485
			(0.0364)	(0.392)
Distance Temple			0.00615**	0.792***
			(0.0667)	(0.166)
Distance Hospital			0.0778*	0.221*
			(0.0698)	(0.153)
Hometown location			0.311***	0.288**
			(0.264)	(0.402)
Free study courses			0.0519*	0.153*
			(0.0882)	(0.134)
Observations	60	60	60	60

Source: Author.

Note: Standard errors in parentheses. *** - p<0.01, ** p<0.05, * p<0.1.

4. Discussion

The results showed that if other independent variables are fixed, being female results in a higher SWB than being male, which is in line with Alesina et al. (2004) and Blanchflower & Oswald (2004). In general, the empirical evidence in the literature with respect to age is rather ambiguous, although there is some support for a U-shaped relationship between age and SWB (Frey & Stutzer, 2002). The rise in levels of SWB as people become older might be due to the ability of older people to better adapt to changing circumstances (Frey & Stutzer, 2002). People with more education might be better able to deal with life's challenges and the positive relationship between education and SWB is in accordance with the findings in Blanchflower & Oswald (2000) and Ferrer-i-Carbonell (2005) for example. The Barthel ADL Index is an easy-to-use tool for assessing the self-care and mobility activities of daily life. The findings confirmed the importance of the ADL for participants in both public and private retirement homes. With regard to economic status, many studies - including Easterlin (1995), Powdthavee (2007), and Diener (2009) - suggested that evidence was weakly supportive of a SWB-income link. In these studies, an

individual's income was generally related to SWB at mostly low levels of income. Once individuals had a sufficient level of income, the association between income and SWB appeared to be relatively weak. Therefore, this study measured economic status by assessing the feeling of having plenty of money to spend on things they want, instead of income. It can be stated that some people feel that money can increase their SWB/welfare but others feel that it may not as there are some exceptions; people can use money to purchase almost everything except true love and true friendship. Those two aspects are also integral parts of SWB that cannot be overlooked. Family and friends regularly visiting was important for elderly residents in both public and private retirement homes. Research has suggested that when time is perceived as limited, elderly people prefer social networks comprised of family members and friends that can provide meaningful interaction and assistance (Knodel & Saengtienchai 2007; Knodel & Chayovan 2012; Knodel et al., 2010). Lack of social support causes loneliness (Knodel et al., 2013; Teerawichitchainan et al., 2015), so a social network of family and friends can buffer stress and promote well-being thus reducing loneliness (Frahm, 2009). Regarding the descriptive statistics, the number of participants in public RHs who were independent in all ADL functions was larger than the corresponding number in private RHs. However, the need for care staff in public RHs was higher than in private RHs. As such, one could point out that there might be a shortage of care staff in public retirement homes. These findings are supported by Verakul, who found that the most common problem regarding service provision in residential homes in Thailand was a shortage of care staff (Verakul, 2005). In sufficient numbers, care staff could assist elderly residents and provide them with psychological support. One study also found that involving old people in interesting extra-curricular activity helped them to manage their loneliness (Hauge & Kirkevold, 2012). Most Thais are Buddhist, so temples have been an important part of Thai society for over 700 years. People go to the temple to make merit; pray to the Buddha for good health, good fortune and wealth; and seek advice from monks. Religious faith is a source of strength among elderly Thais, so studying the importance of a short distance between the retirement home and the temple played a vital role in this study. According to the in-depth interview answers, the proximity of the retirement home to a hospital could make the elderly residents feel safe and secure. If something bad happens, they can get to the hospital in plenty of time. The in-depth interviews also showed that many participants had chosen to remain in their hometown, basically because they love it. They feel at home there, have deep connections with the community and feel no desire to leave. They are naturally inclined to cling to the familiar, and worry that they might fail in adapting to a new environment. Regarding the regressions, several participants with increased SWB/welfare valued educational opportunities and had a keenness to learn. Research indicates that cognitive development, recall and problem solving may show decline with aging (Frahm, 2009). In order to overcome this cognitive decline, learning new things can help the elderly develop and maintain their cognitive ability (Frahm, 2009). A retirement home may help facilitate the elderly in attending education courses by providing transportation services to shuttle residents to and from study venues.

5. Conclusion

Facing a rapid aging of its population, Thailand's demand for retirement homes is expected to increase in the coming decades. Retirement homes are still relatively a new concept to Thai society, so this study aimed to explore factors affecting elderly residents in

public and private retirement homes in order to increase their subjective well-being/welfare.

Primary data was collected by distributing the questionnaires and carrying out in-depth interviews between August 2017 and November 2017. In total, 120 participants were included, of which 60 persons were from public retirement homes (44 women and 16 men) and 60 persons from private retirement homes (40 women and 20 men). The cross-sectional data were analyzed using standard descriptive statistics and estimations of logit regressions.

The key finding was that a short distance between the retirement home and a temple was strongly and positively related to SWB/welfare in both public and private retirement homes. In addition, the coefficients of a short distance between the retirement home and a hospital were positive and statistically significant in all regressions. A retirement home located in a participant's hometown raised the probability of recording a "high TMHI" value. The results also revealed a positive and statistically significant relationship between interest in obtaining free college courses and SWB/welfare.

A general conclusion which could be drawn from this study is that the results of the need variables affecting the SWB/welfare of the participants showed little difference between public and private retirement homes, except for the need for a higher number of care staff. This factor only decreased SWB/welfare with statistical significance in the case of participants living in public retirement homes.

Among the control variables, being female, being older, completing secondary school, and having plenty of money to spend were strongly and positively associated with SWB/welfare. It was noteworthy that a total Barthel ADL index score of more than 10 and having family and friends visit regularly (once a week or a few times a week) played an important role in increasing participants' SWB/welfare in both public and private retirement homes.

Before this study, little was currently known about the factors which contribute to increasing SWB/welfare among elderly people in retirement homes. This study has shed some light on those factors, which should now be seriously considered when improving existing retirement homes or establishing new ones.

With the limited time and budget, the researcher only collected data from a sample in Bangkok. It would be interesting to conduct an additional survey to see if the findings would hold for a sample from rural areas.

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