Biosocial Factors Affecting Spiritual Well-Being of the Elderly in Thailand

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Abstract
Spiritual well-being is a sense of peace and contentment stemming from an elderly individual's relationship with the spiritual aspects of life in relation to the quality of life. This descriptive research was aimed at determining the biosocial factors influencing the spiritual well-being of elderly persons lived in rural area of Chacheongsao Province located in Eastern Thailand. Questionnaires were administered to 330 elders by personal interviews between August and October 2015. According to the findings, gender, marital status, education, religion, working conditions, people who living with, and activities with elderly club affected the spiritual well-being of the elderly by t-test, and One-way ANOVA at a 0.05 level of significance, while age was unaffected to spiritual well-being of the elderly. The findings of this study confirmed the significant of various biosocial factors that affect the spiritual well-being of the elderly.

Key words: biosocial, spiritual well-being, elder, Thailand

Introduction

The elderly population in Thailand has increased steadily (Foundation for Older Persons' Development (FOPDEV), 2015). Changing of socioeconomic conditions, cultural norms and values, social support systems, and policies affected well-being of the elderly population in Asia (Hermalin, 2012), which is the similar to the situations in Thailand (Knodel, Prachuabmoh, & Chayovan, 2013). By the concept of seven dimension of wellness (Chobdee, 2015), "wellness" is the full integration of states of physical, mental, and spiritual well-being that includes social, emotional, spiritual, environmental, occupational, intellectual and physical wellness. Each of these seven dimensions act and interact in a way that contributes to quality of life.

Spiritual well-being is a component of health-related quality of human life (Bredle et al, 2011). There are many definitions of the spiritual well-being i.e. Ebersole & P. Hess (2013) defined as "Spiritual well-being is an expanded sense of time in relation to the quality of life"**;** Aston University (2015) defined as "Spiritual well-being is about our inner life and its relationship with the wider world"; Mosby's Dictionary (2015) defined as "It is a sense of peace and contentment stemming from an individual's relationship with the spiritual aspects of life"; and University of California, Riverside (2015) defined as "A personal matter involving values and beliefs that provide a purpose in their lives". In this study, spiritual well-being of the elderly was defined as the ability to establish peace and harmony in their lives, the ability to develop congruency between values and actions, to realize a common purpose, and to be happy living.

The selected factors of this study were based on the social factors and biology factors that called "Biosocial factors" which from several related literature (e.g. U.S. Department of Health and Human Services, 2015; Knodel & Chayovan, 2008, etc). The biosocial factors included two factors that were biological factors and social factors. The biological factors were gender age, and use of prosthesis and orthosis. The social factors were social support and social interactions, and socioeconomic conditions variables that were marital status, education, religion, people who living with, activities with elderly club, working conditions, and adequate of income.

Research question is "What biosocial factors that affect spiritual health of the elderly living in rural area of Thailand?" The results of this study will be used as baseline data for health planner to promote elderly health and also recommended data for the related studies on Thai elderly well-being.

Research Objectives

To determine the biosocial variables that influences the spiritual well-being of the elderly living in Thailand.

Research Conceptual Framework

This paper focused on selected biosocial factors affect spiritual well-being of the elderly at individual level. Based on the literature review (e.g. U.S. Department of Health and Human Services, 2015; Unsanit et al, 2012; Knodel & Chayovan, 2008; Knodel & Saengtienchai, 2007; Barkan & Greenwood, 2003, etc.)

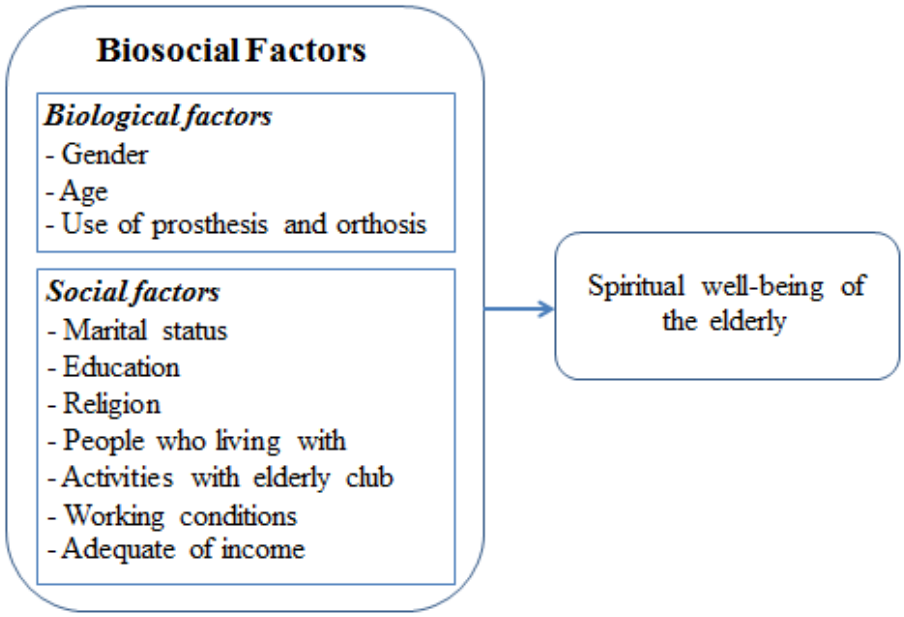

Figure 1: Research conceptual framework

Methodology

Participant

330 elders were recruited from 1,611 elders lived in Nongnae Sub-district, Phanomsarakam District in Chacheongsao Province of Thailand between August and October 2015. With use of the multi-stage sampling, the inclusion criteria were that elders had to be aged between 60 and 89 years, and they had to be able to hear, understand, and respond to the questions. Nongnae Sub-district was selected for the studied area because this community was awarded in elderly care by the Ministry of Public Health of Thailand in 2014.

Research instruments

The spiritual well-being questionnaire was constructed based on information from various sources such as the literature review, previous studies and suggestions from experts. The spiritual well-being questionnaire included: 9 items. Cronbach's alpha coefficient was used to test the reliability of the questionnaire. The reliability of questionnaire was 0.965.

The questionnaire for biosocial factors contained some biological factors questions concerning age, gender, and use of prosthesis and orthosis; social factors questions concerning marital status, education, religion, people who living with, activities with elderly club, working conditions, and adequate of income.

Biosocial factors were measured by questionnaire:

1) Gender; Gender was categorized into two groups: 1) male, and 2) female.

2) Age; Age was recorded age at the nearest birthday in year and categorized into three groups: 1) 60-65, 2) 66-70, 3) 71-75, and 4) 76-89.

3) Use of prosthesis and orthosis; use of prosthesis and orthosis was categorized into two groups: 1) yes, 2) no.

4) Marital status; marital status was categorized into four groups: 1) single, 2) married, 3) widow, and 4) divorce/separate.
5) Education; education was categorized into three groups: 1) illiteracy, 2) not completed primary school, and 3) primary school or higher.
6) Religion; religion was categorized into three groups: 1) Buddhist, 2) Christ, and 3) Islam
7) People who living with; people who living with was categorized into three groups: 1) living alone, 2) spouse, and 3) child or grandchild.
8) Activities with elderly club; activities with elderly club was categorized into three groups: 1) never, 2) sometime, and 3) almost every time.
9) Working conditions; working conditions was categorized into four groups: 1) not working, 2) household work, 3) work with compensation, and 4) social work without compensation.
10) Adequate of income; adequate of income was categorized into two groups: 1) yes, and 2) no.

Data collection and Analyses

Data was collected by personal community-based interviews. Data on all variables were analyzed by descriptive statistics using frequency, percentage, arithmetic mean and standard deviation. One-way ANOVA and t-test were used to analyze the differences in the average between the variables in biosocial factors and spiritual well-being of the elderly at $p < .05$ level of significance.

Results

The biological factors of the 330 elders showed 245 (74.2%) of them to be females; to be aged between 76 and 89, 83 (25.2%) with a mean age of 71.26 years (SD 8.06); and to be use of prosthesis and orthosis, 213 (64.6%). The results are summarized in Table 1.

Table 1
Analysis of frequency and percent in biological factors (n= 330)

Biosocial factors	Frequency	Percent
Gender		
- Male	85	25.8
- Female	245	74.2
Age (Yrs.)		
- 60-65	82	24.8
- 66-70	79	23.9
- 71-75	70	21.2
- 76-89	83	25.2
Use of prosthesis and orthosis		
- Yes	213	64.6
- No	117	35.4

The social factors of the 330 elders showed 245 (74.2%) of them to be married; to have graduated from primary school or higher, 169 (61.2%); to be Buddhist, 299 (90.6%); to live with child or grandchild, 272 (82.4%); to have activities with elderly club almost every time,

267 (80.9%); to be not working, 216 (65.5%), and to have adequate of income, 312 (94.5%). The results are summarized in Table 2.

Table 2
Analysis of frequency and percent in social factors (n= 330)

Biosocial factors	Frequency	Percent
Marital status		
- Single	8	2.4
- Married	211	63.9
- Widow	102	30.9
- Divorce/Separate	9	2.7
Education		
- Illiteracy	46	13.9
- Not completed primary school	115	34.8
- Primary school or higher	169	61.2
Religion		
- Buddhist	299	90.6
- Christ	22	6.7
- Islam	9	2.7
People who living with		
- Living alone	32	9.7
- Spouse	26	7.9
- Child or grandchild	272	82.4
Activities with elderly club		
- Never	14	4.2
- Sometime	49	14.8
- Almost every time	267	80.9
Working conditions		
- Not working	216	65.5
- Household work	39	11.8
- Work with compensation	46	13.9
- Social work without compensation	29	8.8
Adequate of income		
- Yes	312	94.5
- No	18	5.5

Mean of elderly spiritual well-being showed all items were rather in high level. Which found that item no.6 about religious activities was in highest mean score (Mean=4.8909) and item no.4 about cooperation with community activities was in lowest mean score (Mean=4.5697). The results are summarized in Table 3.

Table 3
Analysis of Mean, SD. and Level of spiritual well-being of the elderly

Content if item	Mean	SD	Level of spiritual well-being				
			Habitual	Frequent	Rarely	Few times	Never
1. Emotional control	4.8848	0.3557	296 (89.7)	30 (9.1)	4 (1.2)	0 (0)	0 (0)
2. Pleased to others happy	4.7879	0.5027	274 (83.0)	42 (12.7)	14 (4.2)	0 (0)	0 (0)
3. Being a valuable person	4.7667	0.6640	282 (85.5)	31 (9.4)	7 (2.1)	8 (2.4)	2 (0.6)
4. Cooperation with community activities	4.5697	0.5700	201 (60.9)	116 (35.2)	13 (3.9)	0 (0)	0 (0)
5. Relation with others	4.7636	0.5040	264 (80.0)	54 (16.4)	12 (3.6)	0 (0)	0 (0)
6. Religious activity	4.8909	0.3823	302 (91.5)	20 (6.1)	8 (2.4)	0 (0)	0 (0)
7. Being independence in dependence	4.8697	0.3372	287 (87.0)	43 (13.0)	0 (0)	0 (0)	0 (0)
8. Value in life	4.6212	0.8570	271 (82.1)	9 (2.7)	34 (10.3)	16 (4.8)	0 (0)
9. Being at peace	4.7061	0.6941	269 (81.5)	34 (10.3)	18 (5.5)	9 (2.7)	0 (0)

The level of spiritual well-being of the elderly found 80% to be in very good level, 11.5% to be in good level and 8.5 to be in poor level. The results are summarized in Table 4 and Figure 2.

Table 4
Level of spiritual well-being of the elderly

Level of spiritual well-being	Score	Number	Percent
Very good	44-45	264	80.0
Good	36-43	38	11.5
Poor	24-35	28	8.5

Mean =42.861, SD =4.490, Min.=24, Max. =45

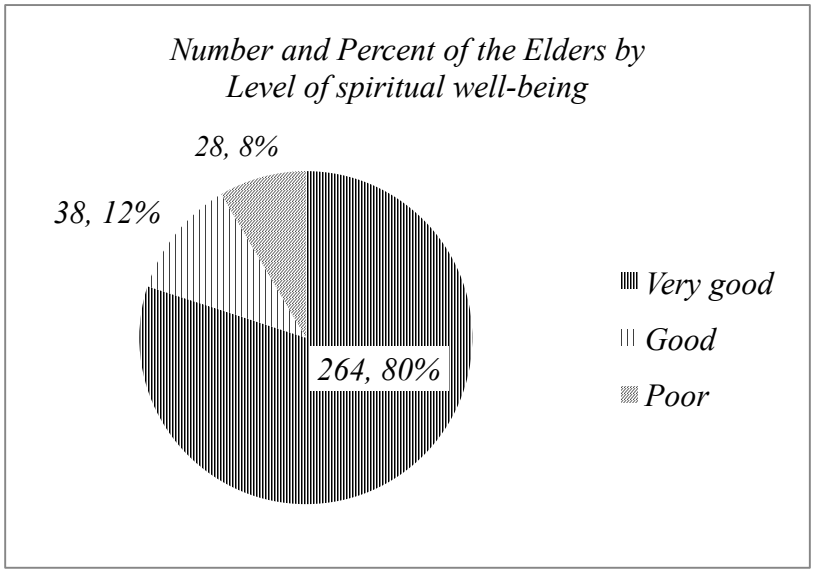

Figure 2: Level of spiritual well-being of the elderly

The biosocial factors regarding gender, use of prosthesis and orthosis, and adequate of income were revealed by t- test shown to affect elderly spiritual well-being where the values of t-test = -11.172, P-value = < 0.000; t-test = 10.800, P-value = < 0.000; and t-test = -8.693, P-value = < 0.000. The results are summarized in Table 5.

Table 5
Analysis of mean differences in gender, use of prosthesis and orthosis, and adequate of income by t-test

Variables		n	Mean	Std. Deviation	t	P-value
Gender	Male	85	37.365	6.104	-11.172	< 0.000
	Female	245	44.767	0.423		
Use of prosthesis and orthosis	Yes	213	44.944	0.231	10.800	< 0.000
	No	117	39.068	5.882		
Adequate of income	Yes	318	42.780	4.554	- 8.693	< 0.000
	No	12	45.000	0.000		

p<.05

The biosocial factors regarding age revealed by F- test to not affect elderly spiritual well-being where the values of F-test = 1.509, P-value = 0.212. While, marital status, religion, people who living with, activities with elderly club, and working conditions revealed by F- test to affect elderly spiritual well-being where the values of F-test = 16.016, P-value = < 0.000; F-test = 564.197, P-value = < 0.000; F-test = 8.346, P-value = < 0.000; F-test = 1912.721, P-value = < 0.000; and F-test = 467.933, P-value = < 0.000. The results are summarized in Table 6.

Table 6
Analysis of mean differences in age, marital status, religion, people who living with, activities with elderly club, and working conditions, by F-test

Variables	Sum of Squares	df	Mean Square	F	P-value
Age					
Between Groups	90.816	3	30.272	1.509	0.212
Within Groups	6540.771	326	20.064		
Total	6631.588	329			
Marital status					
Between Groups	851.844	3	283.948	16.016	< 0.000
Within Groups	5779.744	326	17.729		
Total	6631.588	329			
Religion					
Between Groups	5141.593	2	2570.797	564.197	< 0.000
Within Groups	1489.994	327	4.557		
Total	6631.588	329			
People who living with					
Between Groups	322.073	2	161.037	8.346	< 0.000
Within Groups	6309.515	327	19.295		
Total	6631.588	329			
Activities with elderly club					
Between Groups	6109.358	2	3054.679	1912.721	< 0.000
Within Groups	522.230	327	1.597		
Total	6631.588	329			
Working conditions					
Between Groups	5381.792	3	1793.931	467.933	< 0.000
Within Groups	1249.796	326	3.834		
Total	6631.588	329			

$p < .05$

The multiple comparisons test of significantly variables revealed by Sheffe's test, showed mean differences among significant variables. Marital status was found the difference between the elderly who married and widow. Education was found; 1) the difference between the elderly who graduated from primary school or higher and the elderly who illiterate, 2) the difference between the elderly who graduated from primary school or higher and the elderly who not completed primary school. Religion was found; 1) the difference between the elderly who Buddhists and Christians, 2) the elderly who Islam and Christian. Working conditions was found the difference between the elderly who were in every group of working conditions, i.e. the elderly who not working and household work, work with compensation, and social work without compensation. Activities with elderly club was found the difference between the elderly who were in every group of the activities with elderly club, i.e. elderly who never had activities with the elderly club, using sometime with the elderly club, and using almost every time with the elderly club.

Conclusion and Discussion

Biological factors found two variables were affected to spiritual well-being of the elderly, i.e. gender and Use of Prosthesis and orthosis. (Age was not affected spiritual well-being of the elderly.) Social factors found seven variables were affected to the elderly spiritual well-being, i.e. marital status, education, religion, people who living with, activities with elderly club, working conditions, and adequate of income. The summary of statistical analysis was shown in Figure 3.

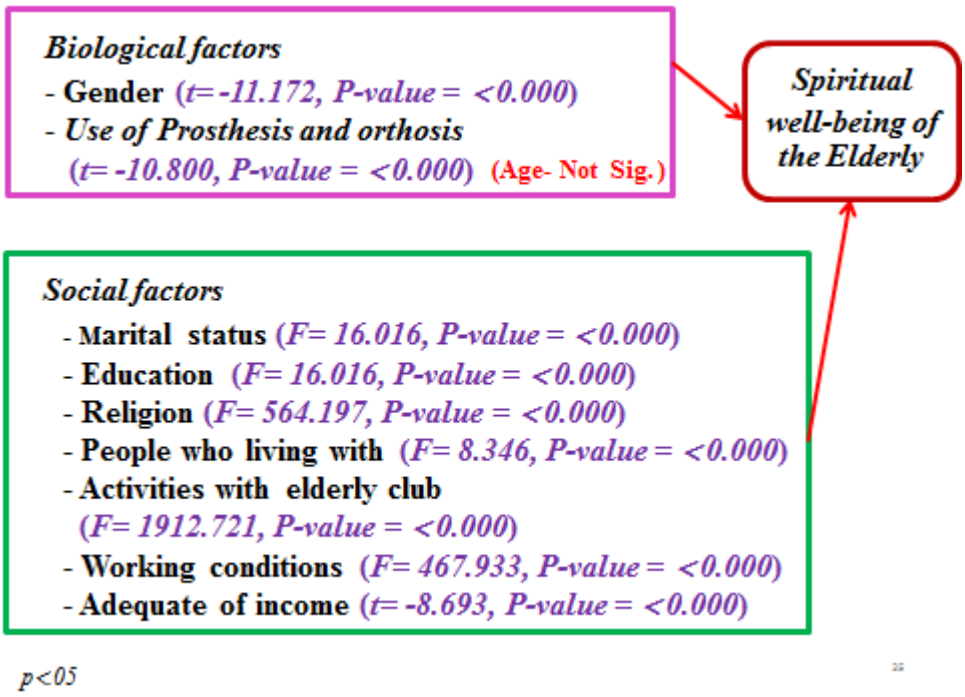

Figure3: Summary of statistical analysis

This present study confirmed the important of biosocial factors that affect spiritual well-being of Thai elderly, especially in the rural elders. The founding were consistent with the studies of some Thai researchers in the variables i.e. gender, use of prosthesis and orthosis, marital status, education, religion, people who living with, activities with elderly club, working conditions, and adequate of income.

Gender affected spiritual well-being of the elderly was consistent with the study of Smith & Baltes (1998) who reported that older men having higher levels of subjective well-being than older women. But opposite to the study of Muijeen (2015) who reported that gender differences was not affect mental health of the elderly.

Use of prosthesis and orthosis was consistent with the study of Vajirapetchpranee (2010) which reported that able to do his or her own routines were related with their happy-living of the elderly. But opposite to the study by Chaimail, Khaonuan & Songsiri (2012) which found no association between ability in daily living and quality of life among Thai elderly.

Marital status affected spiritual well-being of the elderly was consistent with several studies that have been carried out to examine how marital status to affect spiritual well-being of the elderly i.e. Thumcharoen (2012); Muijeen (2015), etc. which reported that marital status was influence on the level of happiness and also spiritual well-being of the elderly.

Education affected spiritual well-being of the elderly was consistent with the study of Knodel, Prachuabmoh & Chayovan (2013) which suggested that "education is an important factor in the wellbeing of older persons with adequate skills in reading and writing being critical for access to information and employment opportunities".

Religion affected spiritual well-being of the elderly was consistent with Kirby, Coleman & Daley (2003) who stated the founding of some researchers that spirituality and religion have been an important part in many older people's lives, and positively correlated with physical health. Moreover, Jianbin & Mehta (2003) which reported that religion was affect subjective aging in positive and negative ways, and Manasatchakun et al (2016) which reported that religion important to healthy ageing in the Isan-Thai culture.

People who living with affected spiritual well-being of the elderly was consistent with the study by Manasatchakun et al (2016) who found that a person who living with was affected healthy ageing in the North-eastern region of Thailand. Moreover by the study of Knodel, Prachuabmoh & Chayovan (2013) which reported that children who elderly living with are the main source of their income.

Activities with elderly club affected spiritual well-being of the elderly was consistent with the study of Thanakwang et al (2012) who reported that active engagement in social activities was related with well-being among Thai elderly.

Working conditions affected spiritual well-being of the elderly was consistent with the study of Calvo (2006) who summarized that working may affect positive physical and psychological of the elderly. Moreover, longer working lives will help most people maintain their overall well-being. Besides Muijeen (2015) and Thumcharoen (2012) which reported that working condition was influence on the mental health and level of happiness of the elderly.

Adequate of income affected spiritual well-being of the elderly was consistent with the study of Rattanamongkolgul, Sritanyarat & Manderson (2012) which suggested that family economic status was influenced quality of aging preparation, and Muijeen (2015) who reported that income of their own was influence on the elderly well-being.

Mean of spiritual well-being of the elderly who had inadequate income higher than who had adequate income was opposite with the most studies of Thai researchers (Tomana & Srisuchat, 2005; Hansakul & Porsing, 2012; Chiewpattanakul, Adisornprasert & Yansomboon, 2011; Sumalrot & Suksawai, 2015; Thanasupanuwech, 2010). Researcher collected the qualitative data by in-depth interview 20 elders who the committee of the elderly club to describe this founding. The result of elder's interview indicated that in the rural community of Thailand especially in the studied area, elderly could have their happy living in their community even though they have not money. It was according to the social context of the rural community and the elderly lifestyles based on the sufficiency economy philosophy which conceived and developed by His Majesty King Bhumibol Adulyadej of Thailand.

Age was not affect the spiritual well-being of Thai elders is opposite with the most study of Thai researchers. (Sukadisai, Maput & Kittiyanusan, 2014). It may because of the older elders who the samples of this study were also have the social support from the elderly club and still have activities with the elderly club as same as the younger elders.

The results suggested that various biosocial are the important factors to affect spiritual well-being of the elderly living in Thailand. In particular, some factors should be studied more clearly in different part of Thailand. In addition, spiritual well-being and healthy aging activities should be developed to encourage among the elderly people in Thailand.

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