Original Article

Factors Affecting Self- adaptation among Early Elderly People, Artsamat Subdistrict Health Promoting Hospital: Mixed Method Approach

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Abstract

OBJECTIVES: This study employed an explanatory sequential mixed method design to investigate factors influencing self-adaptation among early elderly individuals and to explore their opinions and lived experiences related to adaptation. The research was conducted among residents in the service area of Artsamat Health Promoting Hospital.

MATERIALS AND METHODS: The quantitative phase involved 130 elderly individuals aged 60–69 years residing in Artsamat Subdistrict, Nakhon Phanom Province. Data collection tools included questionnaires on personal information, spiritual well-being, stress, self-perceived abilities, quality of life, and elderly adaptation. Descriptive statistics (frequency, percentage, mean, and standard deviation) and multiple regression analysis were used to analyze the data. The qualitative phase used thematic analysis to examine participants' narratives.

RESULTS: Quantitative findings revealed that the majority of participants were female (56.9%) and 60 years old (14%). Most were married or in a committed relationship (70.8%) and had completed primary education (77.7%). Multiple regression analysis indicated that spiritual well-being was a significant positive predictor of adaptation ($\beta = 0.376$, $p < 0.001$), while quality of life showed a significant negative correlation with adaptation ($\beta = -0.313$, $p < 0.001$). Thematic analysis of the qualitative data identified five major themes: spiritual well-being, factors influencing spiritual well-being, adaptation strategies, health status, and overall quality of life. The findings suggest that both spiritual well-being and quality of life play critical roles in elderly adaptation.

CONCLUSION: To enhance adaptation among early elderly individuals, nurses should implement programs that promote spiritual well-being—such as religious or mindfulness-based activities—and strengthen physical, psychological, and social dimensions of quality of life. Such initiatives can support elderly individuals in adjusting effectively to the aging process.

Keywords: elderly, self-adaptation, stress, quality of life, spiritual well-being

In 2017, Thailand had 13,064,929 elderly people aged 60 and over, making up 20.08% of the population. By 2021, this number had increased to 13,444,127, or 20.69% of the population.[1] This trend showed a steady rise in the elderly population. As a result, improving the quality of life for older adults became more important, especially since many were still socially active. Health promotion played a key role in preventing the physical decline that could lead to homebound or bedridden conditions, allowing elderly people to live better lives both physically and mentally. The Roy Adaptation Model (RAM)[2] included four modes: the physical mode, self-concept mode, role function mode, and interdependence mode. This model helped older adults adapt to life changes, allowing them to maintain their roles and experience life satisfaction. Therefore, adaptation was essential for the well-being of older adults.[3]

The literature review revealed that the adaptation of the elderly involved multiple factors, including gender, age, economic status, stress, recognition of one's abilities, spiritual well-being, and quality of life.[4-6] It also highlighted the influence of factors such as agricultural occupations, trade, working for hire, receiving living allowances, raising grandchildren, social participation, membership in various clubs, and involvement in religious and cultural activities.[7-9] Mixed-method research, which combined both quantitative and qualitative data, allowed for a deeper understanding of the opinions and experiences of the elderly. This approach helped in preparing the elderly for better adaptation.

In 2021, Nakhon Phanom Province ranked 48th in Thailand in terms of elderly population, with 114,517 individuals aged 60 years and older out of a total population of 1,221,542, accounting for 9.37%.10 Within the service area of Artsamat Health Promoting Hospital, which covers six villages and a total population of 5,167, there were 470 elderly individuals. Among them, 201 were classified as early elderly (aged 60–69 years). This group was in a transitional stage—having recently retired from work—and was beginning to experience age-related changes in physical, mental, spiritual, and quality-of-life domains.

Despite the importance of adaptation during this stage, no prior studies had examined the factors influencing self-adaptation among the early elderly in this context. Moreover, most existing research relied solely on quantitative survey data, overlooking the richness of qualitative insights. A mixed-methods approach was deemed appropriate to provide a more comprehensive understanding of both measurable factors and the subjective experiences of adaptation in older adults.

This study aimed to investigate the factors influencing self-adaptation among early elderly individuals in the service area of Artsamat Health Promoting Hospital and explore the opinions, perspectives, and lived experiences of early elderly individuals regarding their adaptation to aging.

Materials and Methods

This research was an exploratory sequential mixed method design with the objective of studying factors affecting self- adaptation among early elderly people, Artsamart Subdistrict Health Promoting Hospital, and to study opinions and experiences regarding the adaptation of early elderly people Artsamart Health Promoting Hospital. Data were collected between 10 February 2024 and 10 August 2024.

Population and Sample

The target population consisted of 201 early elderly individuals (aged 60–69 years) residing in Artsamat Subdistrict. The required sample size was calculated using G*Power,[11] with a medium effect size ($f^2 = 0.15$), power of 0.90, alpha level of 0.05, and seven predictor variables. The resulting minimum sample size was 130 participants, selected through stratified random sampling.

Inclusion Criteria:

1. Aged between 60 and 69 years.
2. Resided in Artsamat Subdistrict for at least one year.
3. Willing and able to provide informed consent.

Exclusion Criteria:

1. Withdrew consent during data collection.
2. Had health conditions or other limitations (e.g., acute illness) that prevented full participation.
3. Participants who relocated during the study period were withdrawn.

Ethical Considerations

This study was reviewed and approved by the Human Research Ethics Committee of Nakhon Phanom University, under protocol number REC No. HE 7567, dated 2 February 2024. All participants provided written informed consent prior to participation.

Data Collection

Phase 1: Quantitative Data Collection: The researcher introduced herself to each participant, clarified the study objectives, discussed potential benefits and ethical protections, and obtained informed consent. Participants then completed a self-administered questionnaire, which required approximately 30–45 minutes. Upon completion, the researcher provided health education, answered questions, offered aging-related guidance, and expressed appreciation for the participants' cooperation.

Phase 2: Qualitative Data Collection: Following the analysis of quantitative data, 10 key informants were purposively selected based on their highest adaptation scores. The sample size was determined based on the principle of data saturation. Semi-structured in-depth interviews were conducted to explore participants' beliefs, perspectives, and adaptation experiences, thereby enhancing the interpretive value of the quantitative findings.[12,13]

Measurement Instruments

The study utilized five standardized questionnaires to assess the key constructs: spiritual well-being, stress, self-perceived ability, quality of life, and elderly adaptation. Each instrument was validated by experts, with item-objective congruence (IOC) scores of 1.00, and demonstrated acceptable reliability.

1. **Spiritual Well-Being Questionnaire:** This instrument was developed based on O'Brien's[14] conceptual framework of spiritual well-being in illness, which encompasses personal faith, spiritual contentment, religious practices, social support, illness severity, and stressful life events.

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The scale comprises 5-point Likert items ranging from 1 (strongly disagree) to 5 (strongly agree), with a total reliability coefficient of α = 0.74. Score interpretation: 1.00–2.33: Low spiritual well-being, 2.34–3.66: Moderate spiritual well-being, 3.67–5.00: High spiritual well-being.

2. **Stress Questionnaire:** The Suan Prung Stress Scale[15] (20 items) was used, developed by the Department of Mental Health, Thailand. It contains four sections with five items each and measures stress levels on a 5-point Likert scale from 1 (not stressed) to 5 (extremely stressed). The reliability was α = 0.80. Score interpretation: 0–23: Low stress, 24–41: Moderate stress, 42–61: High stress, 62 and above : Very severe stress.
3. **Self-Perceived Ability Questionnaire:** Based on Bandura's Self-Efficacy Theory16, this 24-item questionnaire assesses four components: mastery experiences, vicarious experiences, verbal persuasion, and emotional arousal. Items were rated on a 5-point Likert scale from 1 (least perceived ability) to 5 (most perceived ability), with α = 0.80. Score interpretation: 1.00–2.33: Low self-perceived ability, 2.34–3.66: Moderate self-perceived ability, and 3.67–5.00: High self-perceived ability.
4. **Quality of Life Questionnaire (WHOQOL-BREF-THAI):** This 26-item instrument developed by the World Health Organization measures four domains: physical health, psychological health, social relationships, and environment. It consists of 23 positively worded items and 3 negatively worded items,[17] scored on a 5-point Likert scale from 1 (very dissatisfied) to 5 (very satisfied). The instrument demonstrated high reliability (α = 0.93). Score interpretation: 26–60: Poor quality of life, 61–95: Moderate quality of life, and 96–130: Good quality of life.
5. **Elderly Adaptation Questionnaire:** Based on Andrews and Roy's Adaptation Model,8 this 24-item scale measures four adaptation dimensions: physiological (7 items), autonomy (6 items), role function (6 items), and interdependence (5 items). Responses were recorded on a 5-point Likert scale, with a reliability coefficient of α = 0.91. Score interpretation: 24.00–56.00: Low level of adaptation, 56.01–88.01: Moderate level of adaptation, and 88.02–120.00: High level of adaptation.

Qualitative Research Instruments

For the qualitative phase, a semi-structured interview guide was developed based on the constructs measured in the quantitative phase. The guide consisted of 7 open-ended questions designed to elicit participants' perspectives, beliefs, and experiences related to elderly adaptation. Content validity and face validity were evaluated by a panel of three experts: a research methodology specialist, a gerontological nursing expert, and a biostatistician.

Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 22.0. The analysis was conducted in two phases: quantitative and qualitative.

1. Quantitative Data Analysis

1.1 Descriptive Statistics: Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to summarize participants' demographic characteristics and key variables related to spiritual well-being, stress, self-perceived ability, quality of life, and adaptation.

1.2 Inferential Statistics:

- Pearson correlation analysis was conducted to examine the relationships between independent variables (e.g., gender, age, economic status, spiritual well-being, stress, self-perceived ability, and quality of life) and the dependent variable (elderly adaptation).
- Stepwise multiple regression analysis was employed to identify the most significant predictors of elderly adaptation.

Prior to conducting the regression analysis, the following assumptions were tested:

- Normality: The sampling distribution was assessed and found to meet the criteria for a normal distribution.
- Linearity: A linear relationship was confirmed between the set of independent variables and the dependent variable.
- Multicollinearity: There was no evidence of multicollinearity among the independent variables, confirming the independence of predictors.

2. Qualitative Data Analysis

Qualitative data were analyzed using thematic analysis. Interview transcripts were reviewed multiple times to ensure a deep understanding of the content. Researchers examined participants' responses to identify meaningful patterns, coded the data, and grouped similar responses into themes. The process involved:

- Interpreting the significance of keywords and responses.
- Identifying recurring ideas and overarching themes.
- Synthesizing findings to clarify phenomena and resolve unclear areas.

To ensure trustworthiness and credibility, the researchers employed member checking, whereby selected participants reviewed the interpreted findings to confirm accuracy. Final themes were refined and presented as key narrative findings representing the essence of participants' experiences.[18]

Results

The results of the demographic data analysis indicated that the participants were early elderly individuals aged between 60 and 69 years, with the most common ages being 60 years (14.6%) and 62 years (11.5%). A greater proportion of participants were female (56.9%) compared to male (43.1%). All participants identified as Buddhists (100%). In terms of educational attainment, the majority had completed primary education (77.7%). Regarding marital status, most participants were married or in a committed relationship (70.8%). The primary occupation reported was farming, accounting for 67.7% of the sample. The largest proportion of participants earned a monthly income between 5,000 and 10,000 baht (36.0%). More than half of the participants reported no

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chronic communicable diseases (57.7%). Concerning their health status in the past week, the majority of participants rated their health as good (76.9%). These findings are summarized in Table 1.

The Pearson correlation analysis was conducted to examine the relationship between demographic and psychosocial variables and adaptation among early elderly individuals. As shown in Table 2, gender (r = 0.212, p = 0.015), economic status (r = -0.359, p = 0.022), stress (r = 0.202, p = 0.021), spiritual well-being (r = 0.357, p < 0.001), and quality of life (r = -0.290, p < 0.001) were found to be significantly associated with elderly adaptation. In contrast, age and recognition of one's own abilities were not significantly correlated with adaptation (p > 0.05).

Stepwise multiple regression analysis was conducted to identify key predictors of adaptation among early elderly individuals. The analysis revealed that spiritual well-being (β = 0.376, p < 0.001) and quality of life (β = -0.313, p < 0.001) were statistically significant predictors. Together, these two variables explained 22.5% of the variance in adaptation (R^2 = 0.225, F = 18.418, p < 0.001). The findings highlight the positive impact of spiritual well-being and the complex role of quality of life in elderly adaptation. See Table 3 for details.

Qualitative data from interviews with ten early elderly individuals who had high adaptation scores revealed five key themes: spiritual well-being, factors contributing to spiritual well-being, adaptation, health, and quality of life. All participants were female, aged 60–67 years, with most being married (40%), having primary education (70%), and identifying as Buddhist (100%).

Spiritual well-being emerged as a core factor supporting adaptation, with participants emphasizing the role of religious practice, inner peace, and resilience. Despite facing challenges, many adapted through self-reliance and positive thinking. These findings complement the quantitative results, offering deeper insight into how spiritual well-being and quality of life influence adaptation in early elderly individuals (see Table 4).

Table 1: Personal data of sample and Mean and Standard Deviation of Independent and Dependent Factors (n = 130).

Demographic data	n (%)
Sex	
Male	56 (43.1)
Female	74 (56.9)
Education level	
Primary school	101 (77.7)
Secondary school	23 (17.7)
Bachelor degree	4 (3.1)
Higher than bachelor degree	2 (1.5)
Marital status	
Single	5 (3.8)
Couple	92 (70.8)
Divorce/widow	33 (25.4)
Occupation	
Retirement/Pension	7 (5.3)
Agriculture	88 (67.7)
Personal business	11 (8.5)
Non-employed	4 (3.1)
General employee	14 (10.8)
Others	6 (4.6)
Mean and Standard Deviation	Mean ± S.D.
Age	64.12 ± 2.92
Economic status	6622 ± 6996.54
Stress	28.53 ± 8.15
Recognition of one's own abilities	3.74 ± 0.53
Spiritual well-being	3.77 ± 0.62
Quality of life	87.70 ± 5.52
Elderly Adaptation	58.93 ± 19.02

Table 2: Factors Associated with Elderly Adaptation with Pearson correlation (n = 130).

Variables	*r*	*p*
Gender	0.212	0.015*
Age	0.077	0.384
Economic status	-0.359	0.022*
Stress	0.202	0.021*
Recognition of one's own abilities	0.114	0.197
Spiritual well-being	0.357	< 0.001**
Quality of life	-0.290	< 0.001**

*p < 0.05 , **p < 0.001

Table 3: Stepwise Multiple Regression Analysis of Factors Affecting Adaptation among the Early Elderly (n =130).

Variables	β	S.E.	B	*t*-value	*p*-value
Spiritual Well-Being	0.376	0.398	0.473	4.804	< 0.0001
Quality of Life	-0.313	0.011	-0.045	-4.002	< 0.0001
Constant = 4.593	F-value = 18.418	R = 0.474	R^2 = 0.225	p < 0.001	

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Table 4: Combination of quantitative and qualitative data tables on the factors affecting adaptation among early elderly in Model 2 (Creswell & Clark).[12]

Predictor Variables	Standardized Coefficient (β)	Qualitative Sub-Themes	Illustrative Quotes
Spiritual Well-Being	$\beta = 0.376$, $p < 0.001$	• Inner strength and positive energy • Religious faith and daily spiritual practice • Hope, life purpose, contentment, and resilience • Mental peace and open-mindedness for learning and growth	"Having been instilled with Buddhist teachings since childhood, I developed a sense of purpose and satisfaction. It led to letting go, non-attachment, self-contentment, and self-reliance, all of which helped me adapt as I aged." "I give food offerings to monks every day and attend religious events."
Quality of Life	$\beta = -0.303$, $p < 0.001$	• Adaptation through hardship and self-reliance • Learning problem-solving through limited resources • Stress management in challenging conditions • Practical resilience and survival strategies	"I try to think positively even though I have many obstacles in my life." "With limited resources, I only completed up to 4th grade, which made me rely on myself. I had to adapt well and be frugal to support my family." "The hardships made us adapt quickly and learn how to survive."

Discussion

This study explored factors influencing self-adaptation among early elderly individuals using stepwise multiple regression analysis. The findings revealed that **gender, age, economic status, stress, and perceived self-efficacy** were not statistically significant predictors of adaptation. This contrasts with a previous study in Klong Ree, Songkhla Province[8], where gender, age, and economic status were significantly correlated with adaptation ($p < 0.005$). The discrepancy may be attributed to the homogeneity of the present sample—most participants were aged 60–62 years, had completed only primary education, and engaged in agricultural work after retirement—limiting variability in adaptive outcomes.

Although **economic status** was negatively correlated with adaptation ($r = -0.359$, $p < 0.05$), it was not retained as a significant predictor in the regression model. This could be due to relatively narrow income differences among participants—36% earned 5,000–10,000 baht and 28% earned 10,000–20,000 baht monthly. This supports prior research suggesting that adaptation in the elderly may depend more on psychological traits such as **optimism**, rather than income alone.[20]

Similarly, **stress** did not significantly affect adaptation. This may be because participants experienced relatively low stress, due to stable lifestyles and minimal exposure to high-pressure environments. While prior studies found negative correlations between stress or depression and adaptation in populations with chronic diseases (32.2–36.0%), and positive correlations with health perception (82.4–94.6%) at $p < 0.01$, such associations may not apply to this low-stress rural community context.

According to **Roy's Adaptation Model**[2], gender, age, and economic status fall under the **physiological mode**, while stress and perceived self-efficacy fall under the **self-concept mode**. In this study, the stable living conditions and continuous occupational environment of the participants limited the need for physiological adaptation. Furthermore, with the majority having similar levels of education and lifestyle continuity from working age into early elderly adulthood, individual differences in adaptation were minimal. Although theoretically, high self-efficacy strengthens one's belief in their ability to manage stress and challenges—enhancing self-concept and adaptive capacity[2]—such effects may have been muted due to low variance within the sample.

Spiritual well-being was found to be a significant positive predictor of self-adaptation among early elderly individuals ($\beta = 0.376$, $p < 0.001$). All participants identified as Buddhists (100%) and regularly engaged in religious activities such as offering food to monks and attending sermons on Buddhist holy days. This spiritual engagement likely contributed to their high mean score on the spiritual well-being scale (3.77 ± 0.62), in contrast to a moderate level of adaptation (58.93 ± 19.02).

This finding aligns with the **Roy Adaptation Model (RAM)**[2] and **O'Brien's theory of spiritual well-being**[14], which emphasize spirituality as a key adaptive mechanism that helps individuals transcend material hardship and cope with change. Buddhist teachings, in particular, encourage mindfulness, acceptance, and a deeper understanding of impermanence—all of which foster emotional resilience. In rural northeastern Thailand, Buddhism is deeply embedded in daily life and passed on through generations, further reinforcing its influence on elderly adaptation.

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These findings are consistent with those of Kentongdee et al.[9], who found significant correlations between daily religious practices and spiritual well-being (r = 0.261, p = 0.006; r = 0.213, p = 0.026). Taken together, both theoretical and empirical evidence suggest that spiritual well-being enhances psychological flexibility and supports effective adaptation in early elderly individuals.

Conversely, quality of life was a significant negative predictor of adaptation (β = -0.303, p < 0.001). While this may seem counterintuitive, it is likely that lower quality of life prompted greater adaptation out of necessity. The majority of participants had low socioeconomic backgrounds—77.7% had only primary education and 36.0% earned between 5,000 and 10,000 baht per month. Adapting to these constraints may have fostered resilience, problem-solving, and self-reliance.

The negative correlation between quality of life and adaptation may also reflect the broader challenges faced by older adults, such as declining physical health, emotional strain, or limited social support. These challenges can simultaneously reduce perceived quality of life while requiring individuals to adapt more actively. Importantly, both **quantitative and qualitative findings** in this study confirmed that participants' beliefs, experiences, and daily practices played key roles in shaping their adaptive responses.

Conclusion

This study found that **spiritual well-being** positively and significantly influenced self-adaptation among early elderly individuals, while **quality of life** showed a negative predictive relationship. Other factors—gender, age, economic status, stress, and self-efficacy—had no significant effect. The findings highlight the importance of spiritual practices and lived experiences in fostering resilience during early aging. Promoting spiritual well-being and life skills may be key strategies in enhancing adaptation among the early elderly.

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