Jurnal Keperawatan Indonesia, 2026, 29 (1), 24–32
DOI: 10.7454/jki.v29i1.1595
Received September 2024; Accepted January 2026

pISSN 1410-4490; eISSN 2354-9203

Factors Affecting Older Adult Adjustment at A Health Promoting Hospital in Nakhon Phanom, Thailand

Onuma Kaewkerd[1], Yuttachai Chaiyasit[2], Phensiri Dumrongpakapakorn[3], Nuttiya Prommasaka Na Sakonnakhon[4]

1. Community Health Nursing Department, Boromarajonani College of Nursing Nakhon Phanom, Nakhon Phanom University, Thailand
2. Department of Adult and Aging Nursing, Faculty of Nursing, Ubon Ratchathani University, Ubon Ratchathani, Thailand
3. Department of Adult and Aging Nursing, Rajamangala University of Technology Isan Sakonnakhon Campus, Sakonnakhon, Thailand
4. Department of Adult and Aging Nursing, Boromarajonani College of Nursing Nakhon Phanom, Nakhon Phanom University, Thailand

*E-mail: nsokk@npu.ac.th

Abstract

Elderly adjustment influences quality of life and well-being and informs appropriate health promotion, holistic care, and health services. This study aimed to investigate the factors influencing the adaptation of older adults by focusing on a study conducted at Dong Kwang Health Promoting Hospital in Nakhon Phanom Province, Thailand. A cross-sectional design was used for the study. The sample consisted of 100 older adults and were selected for data collection from March 22, 2023, to April 20, 2023. The research instruments consisted of questionnaires assessing personal information, spiritual well-being, stress, perceived self-care abilities of older adults, quality of life, and older adult adjustment. The results indicated that the majority of the participants exhibited moderate levels of adjustment, with a mean score of 63.40 (SD = 8.99). A statistically significant correlation was found between stress and adjustment among older adults (r = .381, p = .001). Moreover, stress accounted for 11.00% of the variance in adjustment (p = .001). Nurses are recommended to reduce stress among older adults to enhance their adaptive capacity. Stress reduction interventions for older adults should be prioritized as they can enhance adaptive capacity and improve adjustment and quality of life in early old age.

Keywords: factors affecting adjustment, older adult, older adult adjustment

Abstrak

Faktor-faktor yang Memengaruhi Penyesuaian Diri Lansia pada Rumah Sakit berbasis Promosi Kesehatan di Nakhon Phanom, Thailand. *Penyesuaian diri pada lansia dapat memengaruhi kualitas hidup dan kesejahteraan serta memberikan informasi untuk promosi kesehatan, perawatan holistik, dan layanan kesehatan yang tepat. Studi ini bertujuan untuk mengidentifikasi faktor-faktor yang memengaruhi adaptasi diri lansia dengan berfokus pada studi yang dilakukan di rumah sakit berbasis promosi kesehatan Dong Kwang di provinsi Nakhon Phanom, Thailand. Desain penelitian yang digunakan adalah* cross-sectional*. Sampel terdiri dari 100 lansia dengan pengumpulan data dilakukan sejak tanggal 22 Maret 2023 hingga 20 April 2023. Instrumen penelitian terdiri dari kuesioner untuk mengidentifikasi informasi pribadi, kesejahteraan spiritual, tingkat stres, kemampuan perawatan diri, kualitas hidup, dan penyesuaian diri lansia. Hasil menunjukkan bahwa mayoritas peserta menunjukkan tingkat penyesuaian diri yang moderat, dengan skor rata-rata 63,40 (SD = 8,99). Korelasi yang signifikan secara statistik ditemukan antara tingkat stres dan penyesuaian diri di antara lansia (r = 0,381, p = 0,001). Selain itu, stres menyumbang 11,00% variasi dalam penyesuaian diri (p = 0,001). Perawat disarankan untuk dapat mengurangi stres pada lansia guna meningkatkan kapasitas adaptif mereka. Intervensi pengurangan stres untuk lansia harus diprioritaskan karena dapat meningkatkan kapasitas adaptif dan memperbaiki penyesuaian diri serta kualitas hidup di usia lanjut.*

Kata Kunci: *faktor-faktor yang memengaruhi penyesuaian diri, lansia, penyesuaian diri*

Introduction

In recent years, global society has entered an era of rapid population aging. By 2050, it is expected that there will be 2.1 billion older people worldwide as a result of improved health outcomes (World Health Organization, 2020). In Asia, as of 2023, Thailand has entered an aging society, with older adults accounting for 20.08% of the total population, based on a total population of 65,016,190 (Department of Older Persons, 2023).

Adjustment is a critical process for older adults, as they experience physical, psychological, social, and spiritual changes associated with aging. Although older adults contribute valuable experiences and social capital to their communities, many face challenges, such as chronic illness, psychological stress, and social isolation, which may adversely affect their quality of life and well-being (World Health Organization, 2024). Effective adjustment enables older adults to maintain independence, cope with stressors, and live meaningful lives, highlighting the importance of supportive environments and appropriate health services.

Previous studies have identified several factors influencing adjustment among older adults, including age, gender, educational level, stress, self-efficacy, spiritual well-being, and quality of life (Kenthongdee et al., 2022; Klaodee et al., 2017; Maneein & Duangchinda, 2021; Sasuad, 2017). For example, adaptation capacity declines with age (López et al., 2020). Older women generally show greater resilience and more effective coping than older men (Fergus et al., 2024). Higher educational levels are associated with better adaptation among older adults (Qin et al., 2025). Stress affects adaptation in older adults (Kuo et al., 2025; Wang et al., 2019; Zapater-Fajarí et al., 2021). Self-efficacy has been shown to be positively associated with quality of life in older adults and to influence their adaptation (Wojcieszek, et al., 2023). Spiritual well-being is positively associated with adaptive outcomes among older adults (Alinejad et al., 2025). Quality of life is strongly linked to adaptive processes in older adults (Liu et al., 2025).

Despite a growing body of evidence on older adults' adjustment, most existing studies have focused on general adaptation or specific contexts, such as residential transitions and retirement adjustment, with limited research examining elderly adjustment within community-based health service settings, such as health promoting hospitals in rural or provincial areas. For example, research has synthesized older adults' adaptation during transitions into residential care facilities, highlighting stress and cultural influences but not specifically community health service models, such as health promoting hospitals (Sun et al., 2021). In addition, systematic reviews of retirees' psychological adjustment have examined lifestyle and physical activity after retirement, but evidence remains limited on adjustment among early older adults during the transition from employment to retirement in community health contexts (Sharifi et al., 2023).

In Nakhon Phanom Province, older adults constitute a significant proportion of the population, underscoring the need for localized evidence to inform community health planning. Preliminary interviews with caregivers revealed that early older adults often experience declines in physical, mental, social, and spiritual well-being following retirement, affecting their adjustment and quality of life. Therefore, this study aims to examine the factors affecting older adult adjustment in the context of a health promoting hospital as a setting. The selected hospital serves as a key community-based primary healthcare facility for older adults in Nakhon Phanom Province. Preliminary interviews indicated that early older adults in this area experienced adjustment difficulties after retirement, affecting their well-being and quality of life. Therefore, this setting was appropriate for examining older adult adjustment in a real-world community health service context. By focusing on a specific community and service setting, the findings will provide context-sensitive evidence

to support nursing practice, health promotion activities, and policy development tailored to the needs of older adults, ultimately enhancing their adaptive capacity and quality of life.

Methods

Study Design. This study employed a cross-sectional design. It was conducted between March 22, 2023, and April 20, 2023 in Nakhon Phanom Province, Thailand. Older adults aged 60 years and above residing within the service area of Dong Khwang Subdistrict Health Promoting Hospital were targeted for recruitment.

Population and Sampling. The study population consisted of older adults aged 60 years and above living in the Dong Khwang subdistrict. The sample was selected through stratified random sampling. The sample size was determined using G*Power software (Srisatidnarakul, 2020), and a multiple regression analysis was applied. The effect size was set to 0.15, with a statistical power of 0.95 and a confidence level of 0.05. The required sample size of 100 participants was obtained based on the following inclusion criteria: older adults aged 60 years and above who were residing in the Dong Kwang community for at least one year and voluntarily willing to participate in the study. The exclusion criteria were relocated during the course of the study and the participant having health issues as determined by the researcher.

Measurements

Personal information questionnaire: Developed by the researcher, this instrument included a checklist and written response items. It collected data on gender, age, educational level, marital status, religion, occupation, income, chronic diseases, duration of illness, and health problems.

Spiritual well-being questionnaire: This tool was developed by Khemaweero et al. (2017) to assess the spiritual well-being of participants. It consists of 41 items divided into eight dimensions: life happiness, illness acceptance, life harmony, life valuation, selflessness, positive thinking, purpose in life, and forgiveness. The responses were measured on a five-point Likert scale, from "Least" to "Most." The tool was tested for reliability, yielding a coefficient of .71.

Stress questionnaire: Adapted from the Suan Prung Stress Test-20 (SPST-20) (Mahatnirankul, 1997), this 20-item questionnaire measures stress across four dimensions: internal factors, physical health, public health and economic external factors, and environmental external factors. The responses were scored on a five-point Likert scale, with options ranging from "Not feeling stressed" (1 point) to "Extremely stressed" (5 points). The tool was tested for reliability, yielding a coefficient of .76.

Self-efficacy questionnaire: This questionnaire was based on Bandura's social learning theory and self-efficacy theory (Lopez-Garrido, 2023). It includes 24 items divided into four components: successful experience, gaining experience with a model, verbal persuasion, and emotional stimulation. The responses were measured on a five-point Likert scale, from "Least" to "Most." The tool was tested for reliability, yielding a coefficient of .80.

Quality of life questionnaire (WHOQOL-BREF-THAI): Developed by World Health Organization (2020), this 26-item questionnaire consists of 23 positive and three negative items and assesses four domains of quality of life: physical health, mental health, social relationships, and environmental factors. The tool was tested for reliability, yielding a coefficient of .74.

Older adult adjustment questionnaire: Adapted from Roy's and Andrew (1999) concept of adjustment, this 24-item questionnaire assesses four dimensions of adjustment: physiology (seven items), self-concept (six items), roles (six items), and dependence (five items). The interpretation of adjustment scores was categorized based on mean scores as follows: scores 24.00–56.00 points indicate a low level of adjustment, scores 56.01–88.01 points indicate a moderate level of adjustment, and scores 88.02–120 po-

ints indicate a high level of adjustment (Roy & Andrews, 1999). The tool was tested for reliability, yielding a coefficient of .76. All research instruments were pilot tested on 30 participants in another subdistrict with similar characteristics to assess reliability prior to actual data collection.

Data Analysis. Data were analyzed using a computer software program as follows: 1) Descriptive statistics: Personal background information was analyzed using frequency, percentage, mean, and standard deviation; 2) Inferential statistics: Quantitative data were analyzed using simple linear regression to determine the relationships between variables.

Research Ethical Considerations. The study was approved by the Ethical Committee of Nakhon Phanom University, Thailand, with certification number 58/66, dated March 21, 2023. The rights of the research participants were protected by providing them with a thorough explanation of the study's objectives. The participants were informed that their data would be presented in aggregate form and that they had the right to refuse or withdraw from the study at any time without providing a reason, with no consequences for their participation. Confidentiality was assured, and the participants provided their informed consent by signing consent forms.

Results

The sample comprised 100 older adults evenly distributed by gender, with males and females each representing 50% of the participants. The majority of the sample (41%) fell within the age range of 60–67 years. In terms of education, most of the participants (94%) had completed elementary school. In terms of marital status, the majority (66%) reported being married (couples). In addition, 70% of the participants were engaged in casual physical activities, including farming, rice cultivation, rubber plantation work, and other agricultural tasks that required physical exertion. Notably, 68% of the participants indicated that they had no underlying health conditions. Comprehensive details are presented in Table 1.

The results indicated that the older adults generally exhibited moderate levels of adjustment, with a mean score of 63.40 (SD = 8.99). The majority of the participants (96%) were classified as having a moderate level of adjustment, while 3% reported having a low level of adjustment. Only 1% of the samples demonstrated a high level of adjustment. These findings are summarized in Table 2.

The factor associated with older adult adjustment was stress ($r = .381$, $p = .001$). Conversely, the factors not associated with older adult adjustment were gender ($r = -.020$, $p = .862$), age ($r = .058$, $p = .624$), educational level ($r = .190$, $p = .108$), spiritual well-being ($r = .036$, $p = .799$), perceived self-care ability ($r = .022$, $p = .846$), and quality of life ($r = .184$, $p = .359$). These findings are summarized in Table 3.

Furthermore, an analysis of the predictive factors influencing older adult adjustment in a case study at Dong Kwang Health Promoting Hospital was conducted using simple linear regression analysis. The results indicated that the stress factor significantly predicted older adult adjustment ($r = .332$, $R^2 = .110$, $F = 12.165$, $p = .001$). This model accounted for 11% of the variability in older adult adjustment, demonstrating statistical significance at the .05 level, with a standard error of prediction of ± 8.526. The multiple regression coefficients showed that the stress factor had a raw score coefficient (b) of .485 and a standardized regression coefficient (β) of .332. These findings are summarized in Table 4.

Discussion

Stress was found to be significantly associated with older adult adjustment, consistent with Roy's adaptation model, which proposes that stress functions as a stimulus influencing individuals' adaptive responses. Older adults who

experienced higher levels of stress could have activated coping mechanisms that promoted adaptive behaviors, leading to improved adjustment. This finding suggests that stress not only produces negative outcomes but also serves as a catalyst for adaptation when adequate coping resources are available. This result is consistent with previous studies demonstrating a significant association between stress and older adult adjustment, indicating that effective stress management and adaptive coping strategies play a crucial role in facilitating successful adjustment in later life. These findings are also consistent with previous research identifying a correlation between perceived stress and adjustment processes among older adults (Wang et al., 2019; Zapater-Fajarí et al., 2021).

Spiritual well-being did not show a significant relationship with adjustment, which could be due to the relatively homogeneous spiritual and cultural backgrounds of the participants. Most older adults in the study lived in the same rural community and shared similar religious beliefs and practices, which could have resulted in limited variability in their spiritual well-being scores. When spiritual well-being was uniformly high or moderate across the participants, its influence on adjustment was not statistically detectable. In addition, spiritual well-being could have functioned as a background coping resource rather than as a direct determinant of observable adaptive behaviors in daily life. Spiritual well-being did not consistently align with the other three domains of social, emotional, and institutional

Table 1. Number and Percentage of Older Adults Classified by Personal Data (N = 100)

Personal Data	n	%
Gender		
Male	50	50.00
Female	50	50.00
Age (years)		
60–67	41	41.00
68–75	31	31.00
76–83	24	24.00
84–90	4	4.00
(Mean = 69.97, SD = 7.03)		
Educational level		
Elementary school	94	94.00
Secondary education	3	3.00
Bachelor's degree	2	2.00
Postgraduate	1	1.00
Marital status		
Single	7	7.00
Married	66	66.00
Widowed/Divorced/Separated	27	27.00
Occupation		
Retired/Pensioners	9	9.00
Sell/Own your own business	2	2.00
General work/Farming/Farming/Gardening	89	89.00
Exercise		
No	12	12.00
Yes		
- Informal exercise (e.g., farming, rubber plantation, agricultural work until they sweat)	70	70.00
- Walking, cycling, Baslop, etc.	18	18.00
Congenital disease		
No	68	68.00
Yes	32	32.00

adjustment (Sulankey et al., 2025).

Similarly, self-efficacy was not significantly correlated with adjustment. One possible explanation is that many participants were early older adults who remained physically active and socially engaged through informal work, such as farming and gardening. In this context, perceived self-efficacy could have already been sufficiently high and stable, reducing its variability and weakening its statistical association with adjustment. Moreover, adjustment in later life appeared to depend more on situational stressors and available social and health support than on individual beliefs about personal capability alone. This study found no significant correlation between self-efficacy and adjustment problems (Verma et al., 2024).

The lack of a significant association between quality of life and adjustment could be explained by the conceptual overlap between these two constructions. While quality of life reflects subjective perceptions of physical, psychological, social, and environmental well-being, adjustment represents adaptive responses to aging-related changes. Older adults could have reported a moderate quality of life despite experiencing adaptive challenges, particularly when expectations were adjusted to age-related limitations. This adaptation of expectations could have attenuated the direct relationship between perceived quality of life and adjustment. Adaptation with visual disability was found to have no association with the quality of life of older adults with low vision (Sinprasert et al., 2024).

Regarding age, no significant correlation with adjustment was found, possibly because the majority of the participants were clustered within the early older adult age range (60–67 years).

Limited age dispersion reduced the ability to detect age-related differences in adjustment. In

Table 2. Numbers, Percentages, Means, and Standard Deviations of Older Adult Adjustment (N = 100)

Older Adult Adjustment	n	%
Low adjustment (24.00–56.00 points)	3	3.00
Moderate adjustment (56.01–88.01 points)	96	96.00
High adjustment (88.02–120 points)	1	1.00
(Mean = 63.40, SD = 8.99)		

Table 3. Factors Associated with Older Adult Adjustment

Variable	r	p
Gender	-.020	.862
Age	.058	.624
Educational level	.190	.108
Stress	.381**	.001
Spiritual well-being	.036	.799
Self-efficacy	.022	.846
Quality of life	.184	.359

Table 4. Stepwise Multiple Regression Analysis for Predicting Older Adult Adjustment

Variable	Raw Score Coefficient (b)	Standardized Regression Coefficient (β)	T	p
Stress	.485	.332	3.488	P = .0001
Constant = 47.133, SE est = ± 8.526 R = 0.332, R^2 = 0.110, F = 12.165				

addition, early older adults may not yet have experienced the pronounced functional decline often associated with advanced age, resulting in relatively similar adaptive capacities across age groups. Age was not significantly correlated with older adult adjustment (Na Sakonnakhon et al., 2025; Dewi & Krisnatuti, 2020).

The absence of significant associations for gender and educational level could reflect the strong influence of shared environmental and social conditions within the community. Both men and women in the study engaged in similar lifestyles, occupations, and patterns of health service utilization, which could have minimized gender-based differences in adjustment. Likewise, although educational level has been linked to adaptation in other studies, most participants in this study had elementary-level education, limiting variability and reducing its predictive power. Gender did not show a significant relationship with adjustment among older adults (Boucaud-Maitre et al., 2025). Similarly, educational level did not show a significant relationship with adjustment among older adults (Dewi & Krisnatuti, 2020). Limitations of the study, the findings of this study cannot be generalized to populations in other regions of Thailand or in other countries, as the study was conducted in only one district in the northeastern region of Thailand with a sample size of 100 participants.

Conclusion

Based on these findings, nursing practice should prioritize systematic stress assessment and the development of stress management and psychosocial support programs tailored for early older adults. At the policy level, community health services should integrate stress reduction strategies into routine elderly care and allocate resources to support preventive mental health interventions aimed at strengthening adaptive capacity and improving quality of life in early old age.

Future research should further explore spiritual well-being, perceived self-care ability, and quality of life using alternative methodological approaches to clarify their roles in older adults' adjustment. Qualitative or mixed-methods studies are recommended to capture older adults' lived experiences and personal meanings related to spirituality, self-care, and life satisfaction, which may not be fully reflected in quantitative measures. In addition, longitudinal designs and more context-sensitive instruments should be considered to examine how these factors influence adjustment over time and across different life transitions, thereby providing a deeper understanding to inform more targeted and effective interventions.

Acknowledgments

I would like to thank all the participants in this study for their valuable insights. I am also grateful to the staff of Dong Kwang Health Promoting Hospital in Nakhon Phanom Province, Thailand, for their support and assistance. Your contributions were essential to this research.

References

Alinejad, N., Khosromanesh, F., Bijani, M., Rasouli, M., & Sadeghi, M. (2025). Spiritual well-being, resilience, and health-promoting lifestyle among older adult hypertensive patients: A cross-sectional study. *BMC Geriatrics, 25*, 265. doi: 10.1186/s12877-025-05877-x.

Boucaud-Maitre, D., Amieva, H., Pic, O., Letchimy, L., Simo, N., Dartigues J.F., Dramé, M., Dorey, J.-M., & Tabué-Teguo, M. (2025). Poor adjustment to nursing homes and 1-year mortality: A secondary analysis of the KASEHPAD cohort study. *BMJ Open, 15*, e106682. doi: 10.1136/bmjopen-2025-106682.

Department of Older Persons. (2023). *Elderly statistics*. Retrieved from: https://www.dop.go.th/th/know/1

Dewi, M.A., & Krisnatuti, D. (2020). *Level of stress, self-adjustment, and quality of life among elderly men in the beginning of COVID-19 pandemic*. Proceeding ISFCI 2020: The 3rd International Seminar on Family and Consumer Issues in Asia Pacific (pp 41–48). IPB University, Bogor, Indonesia.

Fergus, D.N., Chen, Y., Chuang, Y., Sandra, A., & Chuang, K. (2024). A stratified cross section of resilience in older Taiwanese men and women. *Asia-Pacific Journal of Public Health, 37* (1), 85–92. doi: 10.1177/10105395241303793.

Kenthongdee, V., Kaewkerd, O., Chaiyasit, Y., Chaitonthueg, C., Armartpundit, T., Sanrang, P., & Punaglom, N. (2022). Factors affecting the spiritual well-being of the elderly. *Journal of Environmental and Community Health, 7* (1), 1–8. (in Thai) Retrieved from: https://he03.tci-thaijo.org/index.php/ech/article/view/493

Khemaweero, P.W., Pattanasing, T., Khankaew, T., Khumtua, K., & Lapontan, S. (2017). Enhancement of elder people's spiritual well-being according to Buddhism doctrines. *Journal of MCU Peace Studies, 5* (1), 78-88. (in Thai) Retrieved from: https://so03.tci-thaijo.org/index.php/journal-peace/article/view/84234

Klaodee, J., Naksuwan, S., & Sukmaitree, J. (2017). Factors affecting the life quality of the elderly in Nakhon Si Thammarat Province. *Ratchaphruek Journal, 15* (1), 27–32. (in Thai)

Kuo, W.-C., Hummel, K.P., Brown, R.L., Mead, K., & Liebzeit, D.J. (2025). Behavioral and functional adaptation to chronic stress in older adults. *Nursing Research, 74* (4), 250–257. doi: 10.1097/NNR.0000000000000823.

Liu, Y., & Yang, S. (2025). The impact of community older adult care services on the quality of life of older adults in China: the mediating role of social adaptation. *Frontiers in Public Health, 13*, 1544575. doi: 10.3389/fpubh.2025.1544575.

López, J., Pérez-Rojo, G., Noriega, C., Carretero, I., Velasco, C., Martinez-Huertas, J.A., López-Frutos, P., Galarrage, L. (2020). Psychological well-being among older adults during the COVID-19 outbreak: a comparative study of the young-old and the old-old adults. *International Psychogeriatrics, 32* (11), 1365–1370. doi: 10.1017/S1041610220000964.

Lopez-Garrido, G. (2023). *Bandura's self-efficacy theory of motivation in psychology*. Simply Psychology. Retrieved from: https://www.simplypsychology.org/self-efficacy.html

Mahatnirankul, S., Poompaisalchai, W., & Tapunya, P. (1997). *The research report of the creation of the Suanprung Stress Test Chiang Mai.* Chiang Mai Province: Suanprung Hospital.

Maneein, N., & Duangchinda, A. (2021). Perceived self-efficacy and preventive health behaviors with coronavirus disease 2019 among the elderly in U-Thong district, Suphan Buri Province. *Journal of Council of Community Public Health, 3*(2), 1-18. (in Thai) Retrieved from: https://search.asean-cites.org/article.html?b3BlbkFydGljbGUmaWQ9NjUzMDYy

Na Sakonnakhon, N.P., Kaewkerd, O., Thanyawarathorn, T., & Sehakom, V. (2025). Factors affecting self- adaptation among early elderly people, Artsamat Subdistrict health promoting hospital: Mixed method approach. *The Bangkok Medical Journal, 21* (2), 97.doi: 10.31524/bkkmedj.2025.21.001.

Qin, T., Wei, P., & Xie, Y. (2025) Does education level affect the health status of the elderly? The chain mediating effect of internet use, health behavior and social class identity. *PLoS ONE 20* (2), e0319389. doi: 10.1371/journal.pone.0319389.

Roy, C., & Andrews, H.A. (1999). The Roy adaptation model [2nd ed.]. Stamford: Appleton & Lange.

Sasuad, K. (2017). *Factors affecting the quality of life of the elderly in the eastern provinces*. The Asian Conference on the Social Sciences 2016. Retrieved from: https://papers.iafor.org/submission27408/

Sharifi, M., Nodehi, D., & Bazgir, B. (2023). Physical activity and psychological adjustment among retirees: A systematic review. *BMC Public Health, 23*, 194. doi: 10.1186/s12889-023-15080-5.

Sinprasert, P., Wirojratana, V., Jitramontree, N., & Pattaramongkolrit, S. (2024). The Relationship between social support, anxiety, adaptation, and life quality of the elderly people with low vision. *Journal of The Royal Thai Army Nurses, 25* (2), 440–448. Retrieved from: https://he01.tci-thaijo.org/index.php/JRTAN/article/view/269856

Srisatidnarakul, B. (2020). *Effect size, power analysis, optimal sample size calculations using G*power software*. Chulalongkorn University Press.

Sulankey, A.K., Kotikalapudi, P., & Sulankey, B.K. (2025). The relationship between spiritual well-being and student adjustment to college at a faith-based institution in Thailand. *International Journal of Arts, Science and Humanities, 13* (2), 1-11. doi: 10.34293/sijash.v13i2.9220.

Sun, C., Ding, Y., Cui, Y., Zhu, S., Li, X., Chen, S., Zhou, R., & Yu, Y. (2021). The adaptation of older adults' transition to residential care facilities and cultural factors: A meta-synthesis. *BMC Geriatrics, 21*, 64. doi: 10.1186/s12877-020-01987-w.

Verma, S., Mansoori, R., & Verma, S. (2024). The influence of self-efficacy on adjustment problems: A comparative correlational study between NCC and non-NCC college students. *MIND MRI, 13* (4), 51–57. doi: 10.56011/mind-mri-134-20247.

Wang, X., Heffner, K.L., Anthony, M., & Lin, F. (2019). Stress adaptation in older adults with and without cognitive impairment: An fMRI pattern-based similarity analysis. *Aging, 11* (17), 6792–6804. doi: 10.18632/aging.102204.

Wojcieszek, A., Kurowska, A., Majda, A., Kołodziej, K., Liszka, H., & Gądek, A. (2023). Relationship between optimism, self-efficacy and quality of life: A cross-sectional study in elderly people with knee osteoarthritis. *Geriatrics, 8* (5), 101. doi: 10.3390/geriatrics8050101.

World Health Organization. (2020). *WHO clinical consortium on healthy ageing 2019: report of consortium meeting held 21-22 November 2019*, Geneva, Switzerland. Retrieved from: https://iris.who.int/server/api/core/bitstreams/67673408-091c-4a5e-9ea2-c5d7ebd3f81e/content

World Health Organization (WHO). (2024). *Ageing and health.* Retrieved from: https://www.who.int/news-room/fact-sheets/detail/ageing-and-health

Zapater-Fajarí, M., Crespo-Sanmiguel, I., Pulopulos, M.M., Hidalgo, V., & Salvador, A. (2021). Resilience and psychobiological response to stress in older people: The mediating role of coping strategies. *Frontiers in Aging Neuroscience, 13*, 632141. doi: 10.3389/fnagi.2021.632141