Socio-demographic Determinants of the Quality of Life among Thailand's Aging Population

Yodfah Ratmanee[*]

Phattrawan Tongkumchum

Faculty of Science and Technology, Prince of Songkla University, Pattani Campus

[*]Corresponding author E-mail: yhodpha.nstru@gmail.com

Abstract

This study investigates the socio-demographic determinants of Quality of Life (QoL) among Thai adults aged 60 and over, utilizing data from the 11th Regional Health (RH) office spanning 2012-2018 with 34,800 participants. The WHOQOL-BREF evaluates QoL across physical, psychological, social, and environmental domains, analyzing how various factors impact QoL scores. Descriptive statistics and regression analyses uncover diverse aspects of QoL.

The findings of this study underscore the pervasive gender disparities prevalent across various dimensions. While males typically enjoy superior outcomes in physical, psychological, social, and environmental well-being, there is a striking lack of support and resources for females in these realms, particularly in low socioeconomic backgrounds among those aged 75-85. This disparity not only undermines the well-being of older females but also highlights systemic biases embedded within societal structures. Therefore, it is imperative to prioritize gender-sensitive policies and health promotion initiatives aimed at addressing the multifaceted needs of older women. By fostering inclusivity and equity, such interventions can effectively narrow the gender gap and promote holistic well-being for elderly individuals in Thailand, ensuring that both males and females receive the support and opportunities they deserve.

Keywords: Quality of Life; Ageing Population; WHOQOL-BREF

Introduction

The health, well-being, and quality of life (QoL) of older adults have emerged as significant public health concerns, given the global population's extended lifespan. With the global population aged 65 years and overreaching 771 million in 2022, representing nearly 10% of the world's population, this demographic is projected to rise to 16% by 2050 and potentially 24% by 2100 (Alvarez, 2023). Aging is intricately linked to QoL, with various factors such as physical health, mental well-being, social interactions, and environmental conditions significantly impacting the well-being of older individuals. Understanding these aging-related factors is crucial for enhancing the QoL of older adults and formulating effective policies and interventions to support them.

The World Health Organization (WHO) defines QoL as an individual's perception of their life circumstances, encompassing their goals, standards, and concerns within their cultural and societal context (World Health Organization, 2023). Aging significantly impacts QoL in aging societies, influenced by individual factors, lifestyle choices, and external circumstances. Physical, psychological, and social changes during aging can decrease QoL, affecting physical strength, mobility, social connections, and health (Kim & Hwang, 2022). Enhancing QoL involves adopting a healthy lifestyle, nurturing social connections, engaging in mental and physical activities, and accessing suitable healthcare. The QoL among older adults differs across countries due to factors like economic development, healthcare systems, social policies, cultural norms, and overall population well-being. While some nations provide robust support and healthcare services, others face challenges, resulting in lower QoL (Muhammad & Maurya, 2022). Collaboration among governments, communities, and

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organizations is crucial to improve the QoL of older adults by addressing their specific needs and challenges in each country.

Thailand, with approximately 12.7 million elderly individuals aged 60 and over in 2022 (Statista Research Department, 2023), faces significant health challenges. Chronic diseases such as hypertension (31.7%), diabetes (13.3%), heart disease (7.0%), stroke (2.5%), and cancer (0.5%) are prevalent among the elderly, leading to disability and mortality (Khamsuchart, 2017). Additionally, the elderly population is affected by economic problems, with many lacking savings and being unprepared for retirement (Leetrakun, 2019), which impacts their mental health. According to the Department of Mental Health (2018), the suicide rate among the elderly has been the second highest for several consecutive years, with major causes being relationships with close individuals, chronic physical illnesses, and depression. Environmental issues also pose risks, such as hazardous walking surfaces that increase the likelihood of accidents among the elderly (Intraratsamee, 2017). Research on the QoL of older adults in Thailand provides valuable insights for policymakers, healthcare providers, and social organizations, aiding in the development of targeted interventions and policies to enhance their well-being (Lamtrakul, Chayphong, Jomnonkwao, & Ratanavaraha, 2021). These studies encompass investigations into health status, chronic diseases, disabilities, healthcare accessibility, cultural norms, family support, financial well-being, social isolation, and loneliness among older adults in Thailand. However, studies focusing on personal factors associated with QoL among the elderly remain limited.

Objectives

To explore the domain of WHOQOL-BREF among Thai older adults aged 60 years and over and determine the socio-demographic determinants influencing their QoL.

Methods

Data and variables

The research analyzed secondary data from adults aged 60 years and over. The study spanned seven years, from 2012 to 2018, obtained from RH 11, which is an organization capable of comprehensive long-term data collection without any data loss. This study was approved by the Research Ethics Committee for Science, Technology, and Health Science (PSU.PN.1-003/62) at Prince of Songkla University, Pattani Campus.

The outcome variables were measured using the WHOQOL-BREF questionnaire, which consists of four domains: physical, psychological, social relations, and environment. Respondents provided ratings on a 5-point Likert scale, with scores for negative items recalibrated positively. The domain scores were linearly transformed to a 0-100 scale for facilitating QoL score comparisons among the four domains (Singh, Palaniyandi, Palaniyandi & Gupta, 2022). Higher scores indicated better QoL. Determinants were socio-demographic factors, including gender, age, marital status, education, occupation, income source, caregiver status, and medical treatment location. Age was categorized into six groups, marital status into four categories, and education into five

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levels. Additionally, occupation, income source, caregiver status, and treatment location were categorized. RH was segmented into 12 groups, with RH 13 merged with RH 4 due to data limitations.

Instrument

The measurement instrument utilized was the WHOQOL-BREF questionnaire, derived from the World Health Organization's Quality of Life Instrument (WHOQOL-100). This questionnaire selects one question from each of the 24 items, categorized into four dimensions: physical health (7 items), psychological health (6 items), social relationships (3 items), and environment (8 items). Furthermore, two additional items addressing general health and overall QoL were incorporated, resulting in a total of 26 items. Subsequently, the team created a condensed Thai version by reviewing and adapting the language of the WHOQOL-BREF questionnaire.

Reliability and validity of the instrument

The reliability of the WHOQOL-BREF questionnaire was evaluated using a Cronbach's alpha coefficient of 0.93, while validity was assessed with a coefficient of 0.65.

Data collection

Data from 34,800 adults between 2012 and 2018 were collected annually through simple random sampling from elderly association membership lists, using a cross-sectional approach.

Statistical analysis

The statistical analysis was conducted using the R programming language. Descriptive analysis provided summaries of socio-demographic variables, and each domain of the WHOQOL-BREF was analyzed separately. A multiple regression model was employed to examine the relationship between the determinants and the QoL domain scores. The model was fitted using sum contrasts, enabling the computation of the 95% confidence interval of the means for each domain across levels of the predictive factors in the models.

Results

Between 2012 and 2018, the study encompassed 34,800 adults aged 60 and above from 13 RH offices across Thailand. Participation increased annually from 4,800 to 5,200 adults after 2016. Each RH typically contributed 2,800 participants, except RH 13, which had 1,200. Regarding socio-demographic characteristics, females slightly outnumbered males (52.6% vs. 47.4%). The majority were married (97.31%) and had completed primary school education (82.12%). Vendors constituted the largest occupational group (58.07%), and 44.56% received elderly allowances. Nearly all participants lived with their spouses (87.87%) and utilized government hospitals for healthcare (95.57%). The WHOQOL-BREF questionnaire exhibited an overall Cronbach's coefficient of 0.93. Specifically, Cronbach's alpha values were 0.67, 0.78, 0.71, and 0.85 for the physical, psychological, social, and environmental domains, respectively. The distribution of scores for these four domains is depicted, with ranges of 17.86-64.29, 8.33-100, 0-100, and 18.75-87.5, respectively (refer to Figure 1).

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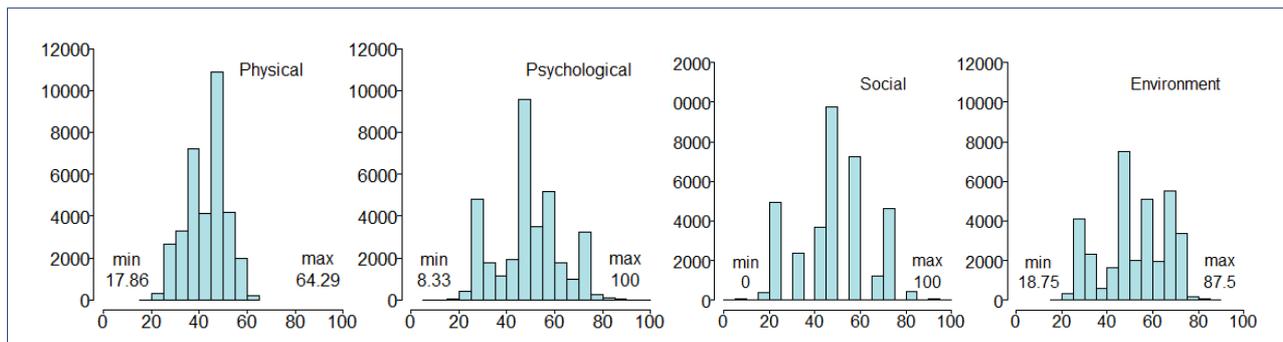ปีที่ 16 ฉบับที่ 2 พฤษภาคม – สิงหาคม 2567   Vol. 16 No. 2 May – August 2024

Figure 1: Distribution of the four domains of the WHOQOL-BREF

A linear model was used to predict the physical domain, incorporating gender-age group, years, and RHs as predictors. The model showed a satisfactory fit, with residuals aligned along a red diagonal line on the quantile-quantile (Q-Q) plot, indicating a mostly normal distribution. Similar models were applied to the psychological, social relationships, and environmental domains, resulting in r-squared values of 52.28%, 50.5%, 41.72%, and 52.18%, respectively. This is illustrated in Figure 2.
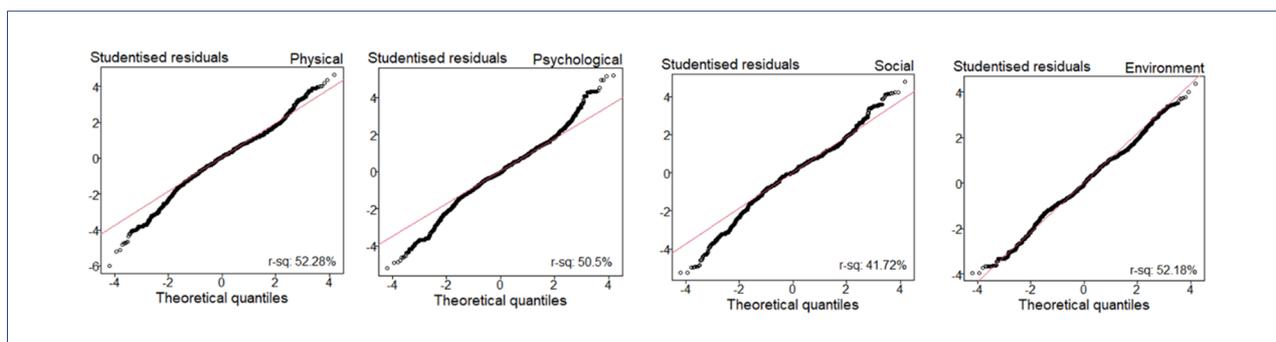

Figure 2: The Q-Q plots show studentized residuals from linear regression across four domains

Education, occupation, and other predictors were excluded. Gender-age group, income, and RH were combined into a single categorical predictor with 144 levels to remove multicollinearity and confounding. Figures 3-6 display confidence intervals of domain scores across different levels of the predictive factor.

The average score for the physical domain is 43.48 (Figure 3). Males and females aged 60-74 in high socioeconomic status tend to score higher than the average in all RH and these age groups in low socioeconomic status for RH 6 and 10 also tend to score higher than the average. For older males and females aged 75-85 in high socioeconomic status tend to score lower than the average in all RH. All age groups both males and females in low socioeconomic status tend to score lower than the average for RH 3-5, 11, and 12.
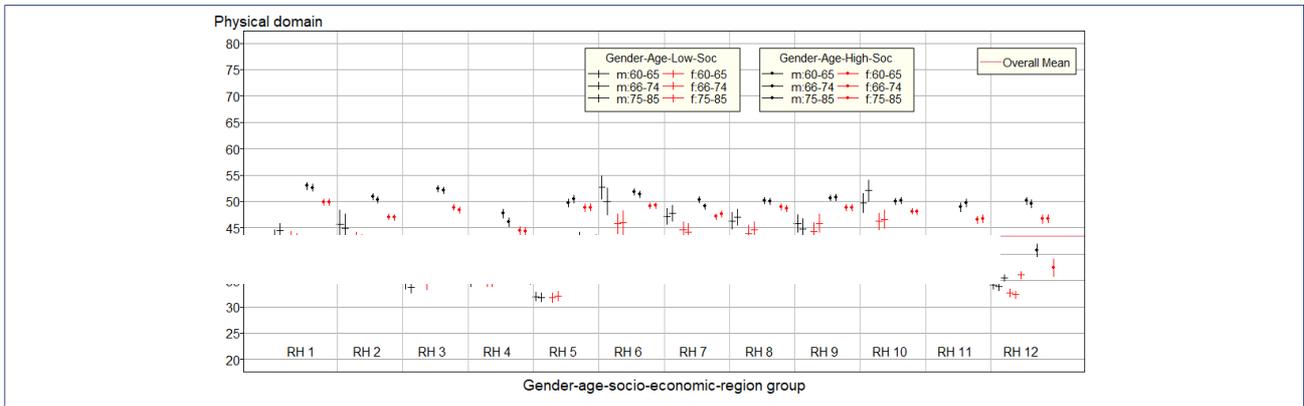
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Figure 3: Confidence intervals of the physical domain for levels of the predictive factor

The average score for the psychological domain is 50.23 (Figure 4). Males in all age groups in high socioeconomic status tend to have higher scores than the average except for the oldest group age 75-85 in RH 4, 11, and 12 having scores around the average. The lower-than-average scores were observed for females aged 60-74 in low socioeconomic status. Notedly, males and females in all age groups in low socioeconomic status in RH 4, 5, 11, and 12 tend to have lower scores than the average.
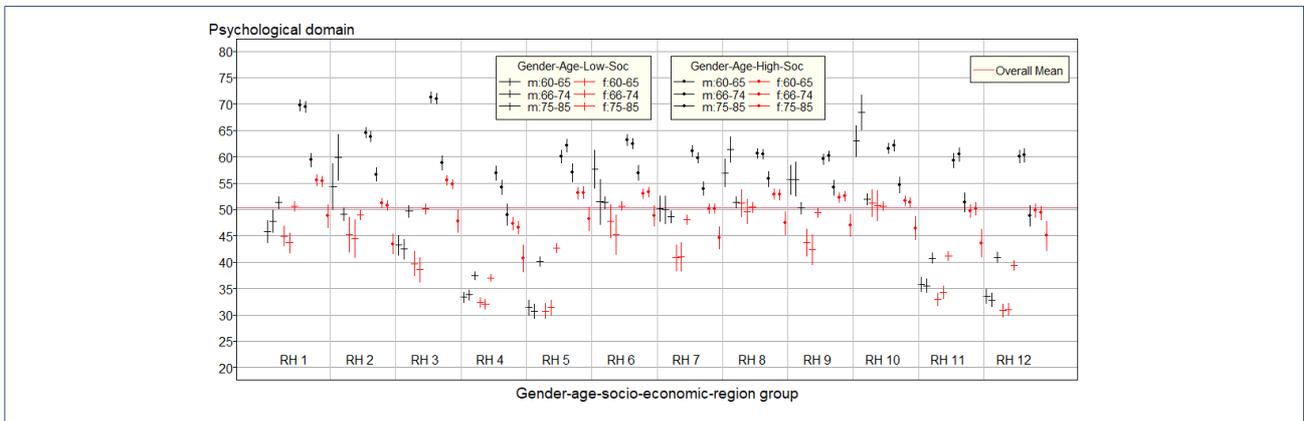

Figure 4: Confidence intervals of the psychological domain for levels of the predictive factor

The average score for the social relationship domain is 50.07 (Figure 5). Males in all age groups in high socioeconomic status tend to have higher score than the average. All age groups for males and females in low socioeconomic status together with females in high socioeconomic status in RH4 and 11 tend to have lower scores than the average.
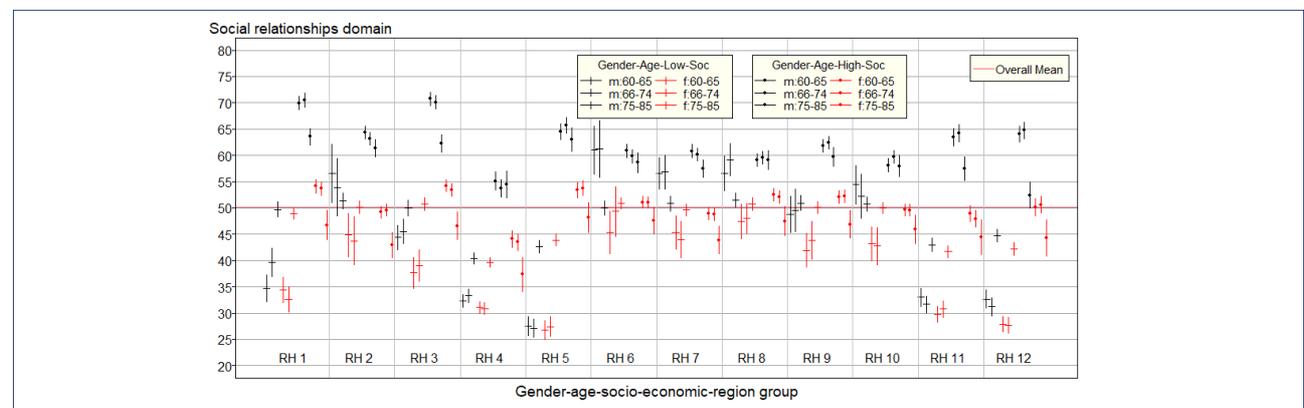

Figure 5: Confidence intervals of the social relationship domain for levels of the predictive factor

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The average score for the environment domain is 52.44 (Figure 6). Males in all age groups and females aged 60-74 in high socioeconomic status tend to have higher scores than the average. Males and females in all age groups in RH 4, 5, 11, and 12 in low socioeconomic status tend to have lower scores than the average.
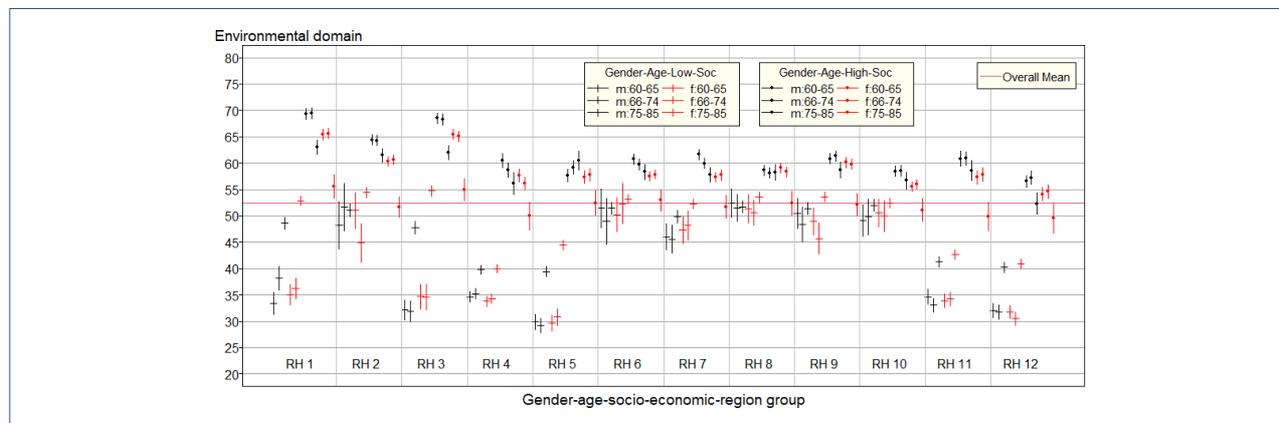

Figure 6: Confidence intervals of the environmental domain for levels of the predictive factor

Discussion

For our study, the QoL of older adults was examined using WHOQOL-BREF, and the relationship between QoL domains with socio-demographic determinants was investigated using linear regression. The highest mean score was observed for the environmental domain and the lowest mean score was found for the physical domain. Each domain score varied with the factor combining gender age socioeconomic status and RH. The findings provide valuable insights into the physical, psychological, social relationships, and environmental aspects of well-being across different demographic groups and socioeconomic statuses.

Across all age groups from 60-85, males consistently demonstrate higher physical performance compared to females across all socioeconomic brackets. In the low socioeconomic group, males generally excel in various aspects, while females tend to outperform in specific areas. Conversely, in the high socioeconomic group, both males and females typically surpass the overall mean, with males consistently outscoring females across all categories. Notably, in the 75-85 age range, females from a low socioeconomic background may exhibit superior performance to males in certain specific aspects, though males generally maintain higher performance levels across all age groups. This may be because gender differences in physical performance scores may arise from varying physiological factors. Males typically undergo unique muscle and brain development influenced by hormones like testosterone, potentially providing them with advantages in physical activities. However, these differences may vary by age and can be influenced by societal and workplace factors, impacting exercise habits and healthcare practices. Furthermore, our research findings align with those of Lepsy, Radwanska, Zurek, Zurek, Kaczorowska, Radajewska & Kotcz (2021), who conducted a study in Poland and found that community-dwelling older adults aged 80–93 generally have a good QoL, with men exhibiting better physical fitness, independence, and self-assessed QoL than women. However, it contradicts the findings of West, Williams, Stuart &

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Pasco (2023), who studied QoL in south-eastern Australia and found that females score higher in this aspect than males, especially among married women, who have a higher likelihood of scoring higher.

Males tend to score higher than females in the psychological domain across all age groups. In the 60-65 age group, males outperform females in certain areas in both low and high socioeconomic groups, while females excel in other areas in the high socioeconomic group. Similarly, in the 66-74 age group, males generally outscore females, except in specific areas. The continues in the 75-85 age group, with males scoring higher overall, particularly in high socioeconomic groups. However, females occasionally outperform males in specific RHs within this age range. These may include differences in coping mechanisms, societal expectations, hormonal influences, and cultural norms, among others. Additionally, access to resources, support networks, and healthcare services could also play a role in shaping psychological well-being differently for males and females. These conclusions are in line with the research on gender disparities in the quality of life among the elderly in India by Moirangthem & Ojha (2022), which noted that males tended to achieve higher scores due to potential ageism and hormonal changes after 60, leading to overall lower mental health scores among females. Similarly, they align with the findings of a study by Scocco & Nassuato (2017), which revealed a link between older age and reduced scores in this domain, particularly among divorced females.

Males generally score higher than females in social relationships across ages 60-85, with some exceptions. In the 60-65 age group, low socioeconomic-status males score lower overall, while high-status males consistently score higher. This continues in the 66-74 age group, with females scoring lower overall. In the 75-85 age group, males score lower overall, but females score higher in some areas. However, males consistently outscore females in high socioeconomic groups. This could be because men are often expected to have close peer relationships, while women are typically expected to prioritize family and household care. Additionally, societal norms in some cultures may encourage men to participate in social activities more actively, while limiting opportunities for women to engage socially. This finding aligns with Singh, Palaniyandi, Palaniyandi & Gupta's (2022) study, indicating that individuals aged 80 and over scored lower than younger age groups. Conversely, in high-socioeconomic groups, males consistently scored higher across all ages, likely due to increased access to social opportunities. This is supported by Van Nguyen, Van Nguyen, Nguyen & Nguyen's (2017) study in rural Vietnam, where elderly males aged 80 and above had better social scores than females.

In the environmental domain, there is a consistent pattern indicating that males tend to score higher than females, except for specific areas. In the 60-65 age group, both low and high-socioeconomic-status males generally outscore females, with exceptions in certain RHs. Similar patterns persist in the 66-74 and 75-85 age groups, with males generally scoring higher overall, particularly in high socioeconomic groups. This trend reflects social and economic influences on how people engage with their environment. Societal norms may encourage men to be more involved in environmental activities or have better access to resources, impacting their

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environmental well-being. Economic differences also play a part, with higher socioeconomic status linked to better environmental conditions. This is consistent with the research of Attafuah, Everink, Abuosi, Lohrmann & Schols (2022), which examined the quality of life of elderly individuals in urban slums in Ghana, showing that elderly males, particularly those living with their families, scored higher than females in this area. Similarly, Shah, Christian, Prajapati, Patel & Sonaliya (2017) found in their study of the elderly in Gujarat, India, that despite lower scores in this domain, educated and married women living with their spouses tend to score higher.

These gender disparities within the same age group underscore the importance of gender-sensitive approaches to environmental assessment and interventions, highlighting the need for tailored strategies to address the unique needs and challenges faced by elderly individuals.

Conclusions

These findings emphasize the nuanced interplay between age, gender, socioeconomic status, and various domains of WHOQOL-BREF. Such insights can inform targeted interventions aimed at promoting comprehensive well-being across diverse demographic groups. Further research is warranted to delve deeper into these dynamics and explore potential causal relationships. It is important to adopt a multidimensional and gender-sensitive approach to address the complex needs of older adults and to foster inclusive and supportive environments conducive to well-being across the lifespan.

Recommendation

1. Recommendations for utilizing research findings

Tailored interventions: Implement targeted interventions that address the specific needs identified in the research, such as promoting physical activity among older females in low socioeconomic groups or enhancing social support networks for elderly males in high socioeconomic brackets.

Education and awareness: Disseminate the research findings among healthcare professionals, caregivers, and community organizations to raise awareness about gender disparities in aging-related outcomes and encourage the adoption of gender-sensitive approaches in caregiving and service provision.

Incorporating gender sensitivity: Integrate gender-sensitive approaches into existing programs and services for older adults, ensuring that interventions consider the unique challenges and strengths experienced by individuals of different genders across various domains of well-being.

2. Recommendations for policy

Gender-inclusive policies: Develop policies that address gender disparities in aging-related outcomes, including initiatives to promote gender equality in access to healthcare, social services, and economic opportunities for older adults.

Supportive environments: Create supportive environments that facilitate the well-being of older adults, including policies that promote inclusive social participation, access to green spaces, and opportunities for lifelong learning and skill development.

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Healthcare accessibility: Ensure equitable access to healthcare services, including preventive care, rehabilitation, and mental health support, with a particular focus on addressing the unique healthcare needs of older females and males across different socioeconomic backgrounds.

3. Recommendations for future research

Longitudinal studies: Conduct longitudinal studies to explore the trajectories of well-being among older adults, examining how gender, age, and socioeconomic status intersect to influence QoL outcomes over time.

Qualitative investigations: Combine quantitative analysis with qualitative exploration to understand older adults' experiences better, focusing on cultural, social, and environmental factors influencing well-being. Additionally, investigate QoL differences among older adults across various RHs.

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Author

Miss Yodfah Ratmanee

PhD candidate in the Doctor of Philosophy Program in Research Methodology

Faculty of Science and Technology, Prince of Songkla University, Pattani Campus

Muang Pattani District, Pattani Province, 94000.

E-mail: yhodpha.nstru@gmail.com

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Associate Professor Dr. Phattrawan Tongkumchum

Advisor, Faculty of Science and Technology, Prince of Songkla University, Pattani Campus

Muang Pattani District, Pattani Province, 94000.

E-mail: phattrawan@gmail.com