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The Relationship Between Psychological Well-Being and the Quality of Life of Elderly People Suffering from Osteoarthritis at Tamalanrea Jaya Health Center

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ABSTRACT
Background: As life expectancy rises, the elderly population worldwide continues to grow, including in Indonesia. One of the most prevalent health issues among the elderly is osteoarthritis (OA), which can significantly impair their quality of life.
Objective: This study aims to explore the relationship between psychological well-being and the quality of life of elderly individuals suffering from osteoarthritis at Puskesmas Tamalanrea Jaya.
Methods: A quantitative descriptive correlational study with a cross-sectional design was employed. The study sample consisted of 58 elderly individuals diagnosed with OA, selected through total sampling. Psychological well-being was measured using Ryff's Psychological Well-Being Scale (RPWB), and quality of life was assessed using the WHOQOL-BREF. Data were analyzed using Pearson correlation tests.
Results: The study revealed a significant relationship between psychological well-being and quality of life in elderly individuals with osteoarthritis ($p<0.05$).
Conclusion: The findings suggest that improved psychological well-being is associated with a better quality of life for the elderly suffering from osteoarthritis. Thus, interventions supporting the mental health of the elderly should be integrated into OA management strategies.
Keywords: Quality of Life, Elderly, Osteoarthritis, Psychological Well-Being

INTRODUCTION

Osteoarthritis is a condition that causes damage to the joint cartilage, resulting in pain, swelling, and decreased joint function. This disease is more common in the elderly, especially women, and is one of the leading causes of mobility reduction and functional disability. Ahmad et al. (2018) The increase in life expectancy has led to a growing elderly population. According to the World Health Organization (WHO), the global elderly population is expected to reach 2 billion by 2050 (Hardiansyah, Mutmainna, and Irmayani 2021). In Indonesia, the elderly population continues to rise, reaching 26 million in 2020. One of the degenerative diseases commonly experienced by the elderly is osteoarthritis (OA), which results in chronic pain and limited movement, thus impacting their quality of life (Hasanuddin 2020). In Indonesia, the prevalence of osteoarthritis among the elderly continues to increase. Data from the Ministry of Health (Kemenkes RI 2022) shows that approximately 10-15% of elderly individuals in Indonesia suffer from osteoarthritis, with 60% of them reporting pain that affects their ability to perform daily activities (Haskas and Nurbaya 2019). Suhartono et al. (2024) also noted that the prevalence of osteoarthritis in elderly patients visiting community health centers (Puskesmas) in several urban areas in Indonesia can reach 18%, with higher rates among women. Puskesmas Tamalanrea Jaya is one of the primary healthcare centers serving thousands of residents in the Tamalanrea District of Makassar. According to data from Puskesmas Tamalanrea Jaya, in 2024, around 2,000 elderly individuals are registered as recipients of services at the health center. Of this number, approximately 320 people (16%) have been diagnosed with osteoarthritis, with a higher proportion of women (70%) compared to men (30%). In addition to physical factors, psychological well-being also plays an important role in determining the quality of life of elderly individuals with OA (Noyumala, Darmawan, and Seltit 2021). Psychological well-being includes self-acceptance, positive relationships with others, autonomy, environmental mastery, purpose in life, and personal growth. Elderly individuals with good psychological well-being tend to have better coping strategies when dealing with chronic diseases, including OA. Therefore, this study aims to analyze the relationship between psychological well-being and the quality of life of elderly individuals suffering from osteoarthritis at Puskesmas Tamalanrea Jaya.

METHODS

This study uses a descriptive correlational quantitative design with a cross-sectional approach. The sampling technique employed was total sampling, and the research was conducted from January 18th to 11th at Puskesmas Tamalanrea Jaya. The population for this study consisted of elderly individuals at Puskesmas Tamalanrea Jaya, totaling 320 respondents, with a sample size of 58 elderly individuals with osteoarthritis (OA) who were registered at the health center.

The variables were measured using research instruments, namely Ryff's Psychological Well-Being Scale (RPWB) to assess psychological well-being and WHOQOL-BREF to evaluate quality of life. Data management was performed using SPSS 25. The data analysis used univariate analysis to observe the frequency distribution of each variable and bivariate analysis to examine relationships using

the Chi-square test, with a significance level of <0.05, indicating that the alternative hypothesis (Ha) is accepted. The study passed ethical quality approval with number 198/STIKES-NH/KP.S1.KEP/XII/2024 from Sekolah Tinggi Ilmu Kesehatan Nani Hasanuddin Makassar.

RESULT

Univariate Analysis

Table 1 *Frequency Distribution Based on Age Characteristics*

Age	Frequency	Percentage (%)
60-69	30	51.7
70-79	28	48.3
Total	58	100.0

Based on the data analysis in Table 1, the age characteristics of the respondents show that the majority are in the 60-69 age group, with a frequency of 30 individuals (51.7%). Meanwhile, the respondents in the 70-79 age group numbered 28 individuals (48.3%). The total number of respondents in this study was 58 individuals (100.0%).

Table 2 *Frequency Distribution Based on Gender Characteristics*

Gender	Frequency	Percentage (%)
Female	29	50.0
Male	29	50.0
Total	58	100.0

Based on the demographic data analysis in Table 2, the gender distribution of the respondents shows that the number of female and male respondents is equal. Out of the 58 respondents, 29 individuals (50.0%) were female, and 29 individuals (50.0%) were male.

Table 3 *Frequency Distribution Based on Psychological Well-Being Characteristics*

Psychological Well-Being	Frequency	Percentage (%)
Low (210-230)	4	6.9
Moderate (231-250)	16	27.6
High (251-280)	38	65.5
Total	58	100.0

Based on the data analysis in Table 3, which was conducted on the psychological well-being level of the 58 elderly respondents with osteoarthritis, it was found that 4 respondents (6.9%) fell into the low psychological well-being category, with scores between 210-230. 16 respondents (27.6%) were categorized as having moderate psychological well-being, with scores between 231-250, and 38 respondents (65.5%) were in the high psychological well-being category, with scores between 251-280.

Table 4 *Frequency Distribution Based on Quality of Life Characteristics*

Quality of Life	Frequency	Percentage (%)
Low (60-75)	11	19.0
Moderate (76-85)	37	63.8
High (86-95)	10	17.2
Total	58	100.0

Table 4 shows that the quality of life analysis of the elderly individuals with osteoarthritis reveals a diverse distribution based on the quality of life categories measured. Of the 58 respondents, 11 individuals (19.0%) were categorized as having low quality of life (60-75), the majority, 37 respondents (63.8%), were in the moderate quality of life category (76-85), and 10 respondents (17.2%) were reported to have high quality of life (86-95).

Bivariate Analysis

Table 5 *Relationship Between Psychological Well-Being and Quality of Life in Elderly with Osteoarthritis*

Psychological Well-Being	Low Quality of Life	Moderate Quality of Life	High Quality of Life	p-value
Low	10(17.2%)	7(12.0%)	0(0.0%)	
Moderate	8 (13.8%)	13(22.4%)	5(8.6%)	<0.05
High	2 (3.4%)	6 (10.3%)	7(12.0%)	

The results show that the majority of respondents had moderate (45%) and low (30%) psychological well-being. Meanwhile, the quality of life of the respondents was mostly categorized as moderate (50%) and low (35%). The Pearson correlation analysis showed a significant positive relationship between psychological well-being and quality of life ($r = 0.56$, $p<0.05$). This indicates that the higher the psychological well-being of the elderly, the better their quality of life.

DISCUSSION

Univariate Analysis

Age

The 60-69 age group is often considered still relatively active, both physically and socially, although they begin to experience a decline in bodily functions due to aging (Lee et al., 2019). Elderly individuals in this group tend to maintain a higher level of independence in performing daily activities compared to those aged 70 and above. Several studies indicate that elderly individuals aged 60-69 tend to have a better quality of life compared to those in older age groups, as they are more capable of adapting to the physical changes that come with aging (Chung et al., 2018). Overall, the age distribution in this study shows that most of the elderly respondents were in their senior years, but still active and potentially able to benefit from interventions that could improve their quality of life despite suffering from osteoarthritis.

Gender

In this study, the gender distribution of the respondents shows a balanced proportion between male and female participants, each with 29

individuals, representing 50% of the total respondents. This indicates that the data collected is fairly representative and that there is no significant gender bias in this research. With 58 total respondents, 50% male and 50% female, it is important to note that gender differences did not seem to affect the variables being analyzed, such as psychological well-being and quality of life among elderly individuals with osteoarthritis. According to previous research by Smith et al. (2018), psychological well-being in elderly individuals can vary depending on various factors, including gender. This balanced distribution offers a broader perspective on the factors influencing quality of life and psychological well-being in the elderly without gender bias. Therefore, the gender variable in this study did not introduce bias into the overall results.

Psychological Well-Being and Osteoarthritis

Based on the results obtained from measuring psychological well-being, the majority of respondents (65.5%) were categorized as having "High" psychological well-being, while 27.6% were in the "Moderate" category, and only 6.9% were in the "Low" category. These findings suggest that most elderly individuals suffering from osteoarthritis had good psychological well-being, despite facing significant health challenges due to the condition. In contrast, the "Low" category in some respondents may be attributed to physical limitations or high levels of stress, which could affect their perception of quality of life and their psychological well-being. These results are consistent with research stating that chronic pain and physical incapacity can have negative impacts on the psychological well-being of elderly individuals (Muller et al., 2021). This study highlights the importance of addressing the psychological aspects of elderly healthcare, not only to improve their quality of life but also to provide better support in coping with the effects of osteoarthritis.

Quality of Life in Elderly with Osteoarthritis

Based on the study's results, the majority of respondents (63.8%) had a quality of life categorized as moderate (scores of 76-85), followed by 19.0% of respondents who were in the low quality of life category (scores of 60-75), and only 17.2% achieved a high quality of life (scores of 86-95). This data shows that the majority of elderly individuals suffering from osteoarthritis in the Puskesmas Tamalanrea Jaya region have a moderate quality of life, with a smaller proportion falling into the high and low categories. Respondents in the low-quality life category (19.0%) may be experiencing more severe symptoms of osteoarthritis. Research by Parmelee et al. (2019) shows that poorly managed chronic pain and a lack of social support often lead to a significant decline in the quality of life for the elderly. Persistent pain can increase the risk of mood disorders like depression and anxiety, which ultimately worsen their perception of quality of life.

Bivariate Analysis

Relationship Between Psychological Well-Being and Quality of Life

The results of this study indicate that elderly individuals with higher psychological well-being tend to have a better quality of life. This can be explained through various psychological factors that affect quality of life, such as coping mechanisms, social support, and the severity of pain caused by osteoarthritis.

Uneven Respondent Distribution: Most respondents were in the "High" psychological well-being category (65.5%), with uneven distribution among other groups. This unevenness made it challenging to detect a significant relationship between variables, as many respondents had relatively high psychological well-being, leaving little difference between them in terms of quality of life.

Limited Sample Size: The small sample size (58 respondents) could affect the statistical analysis power. In studies with small sample sizes, statistical tests may fail to show significant relationships even though a relationship may theoretically exist between the variables being studied.

Elderly individuals with good psychological well-being are better able to cope with the stress caused by chronic diseases like osteoarthritis. They tend to have more adaptive coping strategies, such as seeking social support and maintaining appropriate physical activity. Conversely, elderly individuals with low psychological well-being may experience anxiety and depression, which can worsen pain and limit their daily activities. Previous studies have also shown that psychological interventions, such as cognitive-behavioral therapy and social support, can help improve the psychological well-being of elderly individuals with osteoarthritis. Therefore, a multidisciplinary approach in the care of elderly individuals with osteoarthritis, addressing both physical and psychological aspects, is crucial to enhancing their quality of life.

Overall, while psychological well-being plays an important role in improving quality of life, other factors such as physical pain, social support, and access to medical care are more determinant in the quality of life for elderly individuals with osteoarthritis. Therefore, to improve the quality of life for the elderly, a holistic approach that focuses not only on psychological well-being but also on pain management and social support is essential. Implementing interventions that combine physical and psychological aspects, such as physical and psychological therapy, could be more effective in enhancing the quality of life of elderly individuals with osteoarthritis.

CONCLUSION

This study shows that there is no significant relationship between psychological well-being and the quality of life of elderly individuals suffering from osteoarthritis at Puskesmas Tamalanrea Jaya.

Therefore, interventions that support the psychological well-being of the elderly, such as psychological counseling, social support, and more effective pain management strategies, are needed. It is recommended that healthcare providers at the health center develop educational programs and psychosocial support for elderly individuals with osteoarthritis. Additionally, further research is required to explore other factors that may influence the quality of life of elderly individuals with osteoarthritis.

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