

ARTICLE INFORMATION

Received: July, 28, 2026

Revised: August, 14, 2026

Available online: August, 23, 2026

at: <https://e-jurnal.ipphorr.com/index.php/mhc>

Association between loneliness and anxiety among older adults living in nursing homes

Christian Dwi Riski*, Yafet Pradikatama Prihanto, Berliany Venny Sipollo

Sekolah Tinggi Ilmu Kesehatan Panti Waluya Malang

Corresponding author: *E-mail: rizkychristian585@gmail.com

Abstract

Background: Older adults are a vulnerable population who experience various physical, psychological, and social changes. Loneliness and anxiety are common psychological problems among older adults, particularly those living in nursing homes. Limited social interaction and reduced family support may increase the risk of psychological distress.

Purpose: To determine the relationship between loneliness and anxiety levels among older adults living in nursing homes.

Method: A quantitative research design with a descriptive correlational approach. A total of 207 older adults were selected using purposive sampling based on predetermined inclusion and exclusion criteria. Data were collected using the UCLA Loneliness Scale to assess loneliness and the Zung Self-Rating Anxiety Scale (ZSAS) to assess anxiety. Data were analysed using the Spearman's rho correlation test.

Results: The results showed a positive and significant relationship between loneliness and anxiety among older adults ($r = 0.307$, $p = 0.001$). The correlation coefficient indicated a weak positive relationship, suggesting that higher levels of loneliness were associated with higher levels of anxiety.

Conclusion: There was a weak but significant positive relationship between loneliness and anxiety among older adults living in nursing homes. Higher levels of loneliness were associated with higher levels of anxiety. Early detection and appropriate psychosocial interventions are needed to reduce loneliness and anxiety and promote psychological well-being among older adults.

Keywords: Anxiety; Loneliness; Older Adults.

INTRODUCTION

Aging is accompanied by a decline in physiological functions and changes in psychological conditions that may vary according to individual life experiences and behaviours. Psychological well-being in older adulthood is often influenced by changes in life roles, loss of meaningful activities, reduced independence, and the loss of spouses, friends, or relatives, as well as declining health and the onset of illness. These changes may increase older adults' vulnerability to psychological problems, particularly loneliness and anxiety. The number of older adults continues to increase globally and nationally. The World Health Organization (WHO) projected that the global older adult population would reach approximately 1.2 billion

by 2025 and continue increasing to approximately 2 billion by 2050, with a substantial proportion living in developing countries (World Health Organization, 2020). In Indonesia, the number of older adults has also continued to increase. Data from the Central Statistics Agency (CSA) indicated that the older adult population reached 21.6 million people (8.49%) in 2015 and was projected to increase to 33.69 million in 2025, 40.95 million in 2030, and 48.2 million in 2035 (Statistics Indonesia, 2016). East Java had entered an aging population structure, with the proportion of older adults reaching 14.53% in 2021. In Malang City, the older adult population was reported to reach approximately 110.116 people (13%) in 2023,

consisting of 49.738 men and 60.428 women (Office of Communication and Public Information, 2023). The increasing number of older adults highlights the need for greater attention to their psychological well-being.

Loneliness is one of the psychological problems that may occur among older adults. Loneliness refers to a subjective feeling of being isolated, excluded, or disconnected from others. It occurs when an individual's perceived social relationships do not correspond to the relationships they desire or expect. Loneliness may affect emotional conditions, coping mechanisms, and the ability to adapt, ultimately reducing the quality of life among older adults (Chen, Wang, Chen, Zhao, Li, Zhu, & Wu, 2025). Several factors may contribute to loneliness in older adulthood, including chronic illness, social isolation, reduced social relationships, loss of a spouse, limited family relationships, absence of children, unsuccessful marriages, and neglect by family members (Wang, Zan, Jiang, Shimpuku, & Chen, 2022). Loneliness is not merely a social problem but may also have substantial consequences for mental and physical health. Persistent loneliness has been associated with increased mood disturbances, self-harm, suicidal behaviour, and worsening of existing mental health conditions (Sulandari, Coats, Miller, Hodgkinson, & Johnson, 2024). It has also been associated with psychological problems such as depression and stress, as well as cognitive and physical health problems (Ningsih & Setyowati, 2020). Prolonged loneliness may increase the risk of poor physical and mental health and mortality (Deng, Qian, Lv, Guo, & Yu, 2023). Older adults may also have difficulty expressing feelings of loneliness openly, which may allow psychological problems to remain undetected and untreated (Zhang, Lu, Li, Wang, Yan, & Sun, 2023).

Anxiety is another common psychological problem among older adults. Anxiety is characterized by feelings of tension and worry accompanied by physiological responses such as increased blood pressure, trembling, and headaches (Dodds, Brayne, & Siette, 2024). Among older adults, anxiety may be associated with chronic or difficult-to-treat illnesses, loss of a spouse, changes in employment and family roles, and reduced social support. Psychological problems in older adulthood may also be influenced by difficulties in adapting to developmental changes, feelings of worthlessness, emotional changes, and

declining physical health (Annisa & Ildil, 2016). Anxiety that is not appropriately managed may negatively affect emotional and psychosocial functioning and may reduce perceived quality of life. It may also be associated with difficulties in memory, social-emotional functioning, and daily activities. In older adults, anxiety has been associated with reduced physical activity and functional status, poorer self-perceived health, lower life satisfaction and quality of life, and increased loneliness (Afrashteh, Majzoobi, Janjani, & Forstmeier, 2024). Older adults living in nursing homes may be particularly vulnerable to loneliness and anxiety because they experience separation from family members, changes in social networks, and reduced opportunities for direct interaction with their previous social environment (Wang, Huang, Liu, Wang, Sun, Huang, & Tang, 2024). These conditions may contribute to psychological distress and potentially create an interaction between loneliness and anxiety. However, the relationship between these two psychological conditions may vary according to the characteristics and social environment of older adults in different nursing home settings. A preliminary study conducted by the researchers through interviews on March 4, 2025, at Panti Werdha Tresno Mukti and on March 6, 2025, at Griya Lansia Husnul Khatimah identified indications of loneliness and psychological distress among older adults. Several older adults reported feelings of restlessness, missing their families, and loneliness. Based on these preliminary findings, further investigation was needed to examine the relationship between loneliness and anxiety among older adults living in nursing homes.

RESEARCH METHOD

A non-experimental design with a descriptive-correlational approach to determine the relationship between loneliness and anxiety among older adults at Panti Werdha Tresno Mukti Turen and Griya Lansia Husnul Khatimah Wajak. The population consisted of 207 older adults, including 28 residents of Panti Werdha Tresno Mukti Turen and 179 residents of Griya Lansia Husnul Khatimah Wajak. Participants were selected using non-probability sampling with purposive sampling based on predetermined inclusion and exclusion criteria. Following the selection process, 123 participants met the criteria and agreed to participate, and all were included in the study. Data

Christian Dwi Riski*, Yafet Pradikatama Prihanto, Berliany Venny Sipollo

Sekolah Tinggi Ilmu Kesehatan Panti Waluya Malang
Corresponding author: *E-mail: rizkychristian585@gmail.com

DOI: <https://doi.org/10.56922/mhc.v5i5.4124>

were collected using the University of California Los Angeles (UCLA) Loneliness Scale Version 3 and the Zung Self-Rating Anxiety Scale (ZSAS). The UCLA Loneliness Scale Version 3 developed by Russell (1996) originally consisted of 20 items; following confirmatory factor analysis, four items (5, 6, 9, and 16) were eliminated, resulting in a 16-item instrument with acceptable one-factor model fit (Chi-square = 98.83; $df = 81$; $p = 0.08674$; RMSEA = 0.036). Anxiety was measured using the ZSAS, which had been translated and adapted into Indonesian and demonstrated validity coefficients ranging from 0.663 to 0.918. Permission to use both instruments was obtained prior to data collection.

Data collection was conducted after obtaining permission from both facilities. Eligible participants received an explanation of the study and provided

informed consent before completing the questionnaires. Data were processed through editing, coding, scoring, and tabulating using IBM SPSS Statistics version 20. Univariate analysis was used to describe participant characteristics, loneliness, and anxiety using frequencies and percentages, while bivariate analysis used Spearman's rho to examine the relationship between loneliness and anxiety, with statistical significance set at $p < 0.05$. This study received ethical approval from the Health Research Ethics Committee of Universitas Hafshawaty Zainul Hasan Genggong (No. 676/KEPK-UNHASA/07/2025). The study was conducted in accordance with the principles of informed consent, privacy, confidentiality, veracity, and non-maleficence.

RESEARCH RESULTS

Table 1. Characteristics of Respondents (N = 123)

Variable	Results
Age (n/%) (Mean$\pm$SD) (Range) (Year)	(72.7 $\pm$ 8.9) (45-95)
45–59	5/4.1
60–74	69/56.1
75–90	47/38.2
≥ 90	2/1.6
Gender (n/%)	
Male	59/48.0
Female	64/52.0
Reason for Entering the Nursing Home (n/%)	
Abandoned/without family support	65/52.8
Brought by family	58/47.2
Marital status (n/%)	
Never married	33/26.8
Widowed (male)	43/35.0
Widowed (female)	42/34.1
Divorced	5/4.1
Loneliness Level (n/%)	
Low	15/12.2
Moderate	67/54.5
High	41/33.3

Christian Dwi Riski*, Yafet Pradikatama Prihanto, Berliany Venny Sipollo

Sekolah Tinggi Ilmu Kesehatan Panti Waluya Malang

Corresponding author: *E-mail: rizkychristian585@gmail.com

DOI: <https://doi.org/10.56922/mhc.v5i5.4124>

Anxiety Level (n/%)	
Normal	19/15.4
Mild	37/30.1
Moderate	54/43.9
High	13/10.6

Table 1 shows the characteristics of the 123 older adults included in the study. The mean age of the respondents was 72.7 ± 8.9 years, with an age range of 45–95 years. Most respondents were aged 60–74 years (69/56.1%) and were female (64/52.0%). Regarding the reason for entering the nursing home, most respondents were abandoned or had no family support (65/52.8%), while 58 respondents (47.2%) were brought by their families. In terms of marital status, the largest proportion of respondents were widowed males (43/35.0%), followed by widowed females (42/34.1%) and those who had never married (33/26.8%). Regarding psychological conditions, most respondents experienced moderate loneliness (67/54.5%), followed by high loneliness (41/33.3%) and low loneliness (15/12.2%). In terms of anxiety levels, the largest proportion of respondents experienced moderate anxiety (54/43.9%), followed by mild anxiety (37/30.1%), normal anxiety (19/15.4%), and high anxiety (13/10.6%).

Table 2. Relationship Between Loneliness and Anxiety

Variables	r	p-value*
Loneliness level – Anxiety level	0.307	0.001

*Spearman's rho correlation test; significant at $p < 0.05$.

Table 2 shows a significant positive correlation between loneliness and anxiety levels among older adults ($r = 0.307$, $p = 0.001$). The correlation coefficient indicates a weak positive relationship, suggesting that higher levels of loneliness are associated with higher levels of anxiety among older adults.

DISCUSSION

Most older adults living experienced moderate loneliness (54.5%), while 33.3% experienced high loneliness. These findings indicate that loneliness remains a substantial psychosocial concern among older adults living in nursing homes. The condition may be associated with the loss of a spouse, limited interaction with family members, and reduced social roles (Huang, Liu, Liang, Wang, & Guo, 2023). This interpretation is supported by the characteristics of the respondents, among whom 35.0% were widowed men and 34.1% were widowed women. The loss of a spouse may therefore contribute to feelings of loneliness by reducing emotional attachment and daily social interaction. Loneliness among older adults commonly occurs due to separation from close individuals and reduced social relationships (Aprianti & Murbiah, 2020). The loss of a spouse may lead to a prolonged grieving process and increase the risk of

loneliness among older adults (Ho, Mak, Chung, Leung, Chiang, & Cheung, 2022). Loneliness remained prevalent among older adults who had experienced spousal loss, even when they had relatively good health and social support (Azizah & Rahayu, 2016).

The findings also showed that moderate anxiety was the most prevalent category among respondents (43.9%), followed by mild anxiety (30.1%), while 15.4% were classified within the normal range. The relatively high proportion of respondents experiencing anxiety suggests that psychological problems remain an important concern among older adults living in nursing homes. Anxiety may be influenced by changes in health status, limitations in daily activities, loss of significant others, and reduced emotional support from family members (Sun, Wang, Wang, Lu, Li, Zhu, Qian, Zhu, & Xu, 2024). In addition, older adults living in nursing homes may need to adapt to changes in their living environment and social relationships, which may contribute to feelings of insecurity and concern about the future. Limited social support and restricted social networks were associated with increased anxiety among older adults.

Therefore, strengthening social interaction and emotional support may play an important role in maintaining the psychological well-being of older

Christian Dwi Riski*, Yafet Pradikatama Prihanto, Berliany Venny Sipollo

Sekolah Tinggi Ilmu Kesehatan Panti Waluya Malang

Corresponding author: *E-mail: rizkychristian585@gmail.com

DOI: <https://doi.org/10.56922/mhc.v5i5.4124>

adults (Muthiah & Hartono, 2020).

The Spearman's rho analysis demonstrated a significant positive relationship between loneliness and anxiety among older adults ($r = 0.307$, $p = 0.001$). The correlation coefficient indicated a weak positive relationship, suggesting that higher levels of loneliness were associated with higher levels of anxiety. Although the strength of the correlation was weak, the significant association indicates that loneliness may be an important psychosocial factor related to anxiety among older adults. Older adults experiencing loneliness had a higher risk of anxiety disorders than those who did not experience loneliness (Ergin, Yildirim, Yildiz, & Usenmez, 2023). Persistent loneliness was associated with an increased risk of anxiety symptoms among older adults. The present findings therefore reinforce the importance of addressing psychosocial needs, strengthening social support, and facilitating meaningful social engagement to reduce loneliness and potentially prevent worsening anxiety among older adults (Van Bogart, Scott, Harrington, Felt, Sliwinski, & Graham-Engeland, 2023).

The findings have important implications for gerontological nursing practice. Nurses working in nursing homes should not focus solely on the physical needs of older adults but should also conduct regular psychosocial assessments, particularly assessments of loneliness and anxiety. Interventions such as therapeutic communication, counselling, group activities, social engagement, and family involvement may be integrated into comprehensive nursing care. Strengthening these psychosocial interventions may help older adults develop meaningful social connections, reduce feelings of loneliness, and support better psychological well-being and quality of life (Johansson-Pajala, Alam, Gusdal, Heideken Wågert, Löwenmark, Boström, & Hammar, 2022).

CONCLUSION

There was a significant positive relationship between loneliness and anxiety among older adults living. The Spearman's rho correlation analysis showed a weak positive correlation ($r = 0.307$, $p = 0.001$), indicating that higher levels of loneliness were associated with higher levels of anxiety. These findings highlight the importance of psychosocial support, meaningful social activities, and regular assessment of loneliness and anxiety in nursing home

settings to support the psychological well-being of older adults.

REFERENCES

- Afrashteh, M. Y., Majzoobi, M. R., Janjani, P., & Forstmeier, S. (2024). The relationship between the meaning of life, psychological well-being, self-care, and social capital, with depression and death anxiety in the elderly living in nursing homes: The mediating role of loneliness. *Heliyon*, 10(9), e30124.
- Annisa, D. F., & Ildil, I. (2016). Konsep kecemasan (anxiety) pada lanjut usia (lansia). *Konselor*, 5(2), 93–99.
- Azizah, A. N., & Rahayu, S. A. (2016). Hubungan self-esteem dengan tingkat kecenderungan kesepian pada lansia. *Jurnal Penelitian Psikologi*, 7(2), 40–58.
- Chen, Y., Wang, D., Chen, W., Zhao, E., Li, W., Zhu, S., & Wu, X. (2025). Social capital, health status, and sociodemographic factors associated with subjective well-being among older adults: A comparative study of community dwellings and nursing homes. *BMC Public Health*, 25, 1259.
- Deng, M., Qian, M., Lv, J., Guo, C., & Yu, M. (2023). The association between loneliness and sleep quality among older adults: A systematic review and meta-analysis. *Geriatric Nursing*, 49, 94–100.
- Dodds, L., Brayne, C., & Siette, J. (2024). Associations between social networks, cognitive function, and quality of life among older adults in long-term care. *BMC Geriatrics*, 24(1), 221. doi:10.1186/s12877-024-04794-9
- Ergin, E., Yildirim, D., Yildiz, C. Ç., & Usenmez, S. Y. (2023). The relationship of death anxiety with loneliness and psychological well-being in the elderly living in a nursing home. *OMEGA—Journal of Death and Dying*, 88(1), 333–346.

Christian Dwi Riski*, Yafet Pradikatama Prihanto, Berliany Venny Sipollo

Sekolah Tinggi Ilmu Kesehatan Panti Waluya Malang
Corresponding author: *E-mail: rizkychristian585@gmail.com

DOI: <https://doi.org/10.56922/mhc.v5i5.4124>

- Ho, K. H. M., Mak, A. K. P., Chung, R. W. M., Leung, D. Y. L., Chiang, V. C. L., & Cheung, D. S. K. (2022). Implications of COVID-19 on the loneliness of older adults in residential care homes. *Qualitative Health Research*, 32(2), 279–290.
- Huang, M., Liu, K., Liang, C., Wang, Y., & Guo, Z. (2023). The relationship between living alone or not and depressive symptoms in older adults: A parallel mediation effect of sleep quality and anxiety. *BMC Geriatrics*, 23, 506.
- Johansson-Pajala, R. M., Alam, M., Gusdal, A., Heideken Wägert, P. V., Löwenmark, A., Boström, A. M., & Hammar, L. M. (2022). Anxiety and loneliness among older people living in residential care facilities or receiving home care services in Sweden during the COVID-19 pandemic: A national cross-sectional study. *BMC Geriatrics*, 22, 927.
- Ningsih, R. W., & Setyowati, S. (2020). Hubungan tingkat kesepian dengan kualitas hidup pada lansia di Posyandu Lansia Dusun Karet Yogyakarta. *Jurnal Keperawatan*, 12(2), 80–87.
- Office of Communication and Public Information. (2023). *Upaya Pemkot Malang wujudkan kota ramah lansia*. Malang City Government. <https://malangkota.go.id/2023/11/01/upaya-pemkot-malang-wujudkan-kota-ramah-lansia/>
- Statistics Indonesia. (2016). *Statistics Indonesia 2016: Statistical yearbook of Indonesia 2016*. Statistics Indonesia. <https://www.bps.go.id/id/publication/2016/06/29/7aa1e8f93b4148234a9b4bc3/statistik-indonesia-2016>
- Sulandari, S., Coats, R. O., Miller, A., Hodgkinson, A., & Johnson, J. (2024). A systematic review and meta-analysis of the association between physical capability, social support, loneliness, depression, anxiety, and life satisfaction in older adults. *The Gerontologist*, 64(11), gnae128.
- Sun, S., Wang, Y., Wang, L., Lu, J., Li, H., Zhu, J., Qian, S., Zhu, L., & Xu, H. (2024). Social anxiety and loneliness among older adults: A moderated mediation model. *BMC Public Health*, 24, 483.
- Van Bogart, K., Scott, S. B., Harrington, K. D., Felt, J. M., Sliwinski, M. J., & Graham-Engeland, J. E. (2023). Examining the bidirectional nature of loneliness and anxiety among older adults in daily life. *The Journals of Gerontology: Series B*, 78(10), 1676–1685.
- Wang, Q., Zan, C., Jiang, F., Shimpuku, Y., & Chen, S. (2022). Association between loneliness and its components and cognitive function among older Chinese adults living in nursing homes: A mediation of depressive symptoms, anxiety symptoms, and sleep disturbances. *BMC Geriatrics*, 22, 959.
- Wang, Q., Huang, X., Liu, M., Wang, C., Sun, Z., Huang, C., & Tang, S. (2024). Prevalence and risk factors of depression among elderly people in nursing homes from 2012 to 2022: A systematic review and meta-analysis. *Aging & Mental Health*, 28(12), 1569–1580.
- World Health Organization. (2019). *Review of initiatives on long-term care for older people in Member States of the South-East Asia Region*. World Health Organization, Regional Office for South-East Asia. https://www.who.int/publications/i/item/9789290227359?utm_source=chatgpt.com
- Zhang, D., Lu, Q., Li, L., Wang, X., Yan, H., & Sun, Z. (2023). Loneliness in nursing homes: A qualitative meta-synthesis of older people's experiences. *Journal of Clinical Nursing*, 32(19–20), 7062–7075.

Christian Dwi Riski*, Yafet Pradikatama Prihanto, Berliany Venny Sipollo

Sekolah Tinggi Ilmu Kesehatan Panti Waluya Malang
Corresponding author: *E-mail: rizkychristian585@gmail.com

DOI: <https://doi.org/10.56922/mhc.v5i5.4124>