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Research Article

DETERMINANTS OF LONELINESS, RESILIENCE, AND MENTAL HEALTH IN ELDERLY PATIENTS AT LONG TERM CARE IN JAKARTA

Amzal Mortin Andas,[1] * Shinta Silaswati,[2] I Wayan Romantika[3], Ashar Prima[4], Anisa Purnamasari,[5] Lisnawati Lisnawati [6]

[1,4] Department of Gerontological Nursing, Faculty of Health and Pharmacy, Nursing Study Program, Bani Saleh University,Indonesia
[2] Nursing Study Program, Hermina Health Institute, Indonesia
[3] Nursing Study Program, Stikes Karya Kesehatan, Indonesia
[5,6] Nursing Study Program, Mandala Waluya University,Indonesia

Corresponding Author :
Amzal Mortin Andas, Email: andazmortin.a@gmail.com,Phone:+6287787756667

ABSTRACT

Background: Elderly individuals in nursing homes often experience psychological challenges such as loneliness, decreased resilience, and mental health issues. Understanding the prevalence and determinants of these issues is essential for designing targeted interventions. This study aims to examine the prevalence of loneliness, resilience, and mental health issues among elderly patients at Long Term Care, and to identify the key factors influencing these variables.
Methods: A cross-sectional study design was employed involving 126 elderly residents aged 60-90 years. Data were collected using validated instruments, including the UCLA Loneliness Scale, the Resilience Scale, and the General Health Questionnaire (GHQ-12). Demographic and clinical data, such as age, gender, education level, length of stay, marital status, income, and history of chronic diseases, were also recorded. Statistical analyses included descriptive statistics for prevalence and logistic regression to identify significant predictors of loneliness, resilience, and mental health.
Results: The prevalence of loneliness was 58%, with a higher incidence among females and those aged over 70 years. Resilience was significantly lower in participants with chronic diseases and lower socioeconomic status. Mental health issues were identified in 45% of participants, with lower education levels, longer stays in the nursing home, and chronic illness as significant contributing factors. Logistic regression revealed that chronic disease history (OR = 3.32, $p < 0.05$) and length of stay >5 years (OR = 1.91, $p < 0.05$) were the strongest predictors of poor mental health outcomes.
Conclusion: The study highlights the high prevalence of loneliness, reduced resilience, and mental health issues among elderly residents at Long Term Care. Chronic disease and prolonged institutionalization emerged as critical factors influencing psychological well-being. These findings underscore the need for targeted interventions, such as structured psychosocial therapies, to address these challenges and improve the quality of life of elderly patients.

Keywords: Elderly, Loneliness, Resilience, Mental Health

INTRODUCTION

The global increase in the elderly population has brought attention to the unique challenges faced by this demographic, particularly those living in institutional care settings[1]. As individuals age, they often experience a decline in physical health, social connections, and psychological well-being. These challenges are exacerbated for elderly patients in nursing homes, such as Panti Tresna Werdha, where social isolation and limited familial interactions are common[2]. This reality underlines the need for a deeper understanding of the psychological issues affecting elderly individuals, including loneliness, resilience, and mental health[3].

Loneliness is a pervasive issue among the elderly, with significant implications for their mental and physical health[4]. Studies indicate that loneliness not only affects emotional well-being but also increases the risk of depression, anxiety, and cognitive decline[5]. In nursing homes, factors such as limited social interaction, the absence of close family members, and the stigma of institutionalization exacerbate feelings of loneliness. Moreover, loneliness has been identified as a predictor of mortality among older adults, emphasizing its critical impact on overall health outcomes[6].

Resilience, the ability to adapt to adversity and stress, plays a vital role in maintaining psychological well-being in the elderly[7]. For residents in nursing homes, resilience can mitigate the negative impacts of social isolation and chronic health conditions[8]. However, many elderly individuals experience reduced resilience due to aging-related factors such as declining physical capacity, loss of autonomy, and bereavement. Strengthening resilience through targeted interventions is essential to enhance their quality of life[9,10].

Mental health is another crucial aspect of elderly care, often overshadowed by the focus on physical health[11]. Depression and anxiety are highly prevalent among nursing home residents, yet they are frequently underdiagnosed and undertreated. Poor mental health not only reduces life satisfaction but also worsens physical health conditions, creating a vicious cycle of declining well-being[12]. The interplay between loneliness, resilience, and mental health warrants comprehensive exploration to develop effective care strategies[5].

Elderly individuals residing in nursing homes often contend with complex socio-economic and demographic factors that influence their psychological state. Variables such as age, gender, marital status, education level, and income level have been identified as significant determinants of loneliness, resilience, and mental health. Additionally, the length of stay in a nursing home and the presence of chronic diseases further compound their psychological challenges[13]. These factors highlight the importance of tailoring interventions to address the specific needs of this vulnerable population[14].

The institutional setting itself can contribute to the psychological well-being of elderly residents[15]. While nursing homes aim to provide physical care and security, they may inadvertently foster feelings of dependency and social isolation. Inadequate social engagement programs, lack of personalized care, and limited opportunities for meaningful activities can exacerbate

loneliness and reduce resilience among residents. Identifying modifiable factors within these settings is critical for improving mental health outcomes[16].

Long-term care facilities exemplify specialized institutional environments designed to accommodate elderly individuals with diverse dependency levels. While these facilities provide essential care services, residents consistently encounter typical age-related challenges, including social isolation and chronic health conditions[17]. By comprehending the prevalence and determinants of loneliness, resilience, and mental well-being among the resident population, healthcare providers can gain valuable insights crucial for optimizing care delivery protocols and enhancing residents' overall quality of life[18].

Existing studies on elderly psychological well-being often focus on general community-dwelling populations, with limited attention to institutionalized individuals. Research specific to nursing home residents in Indonesia is scarce, despite the growing elderly population and the increasing reliance on long-term care facilities. This gap in knowledge underscores the need for localized studies to inform culturally relevant and context-specific interventions[19].

The interplay between loneliness, resilience, and mental health has significant implications for policy and practice in elderly care. Addressing these psychological dimensions requires a holistic approach that integrates psychosocial interventions, caregiver training, and institutional reforms. For instance, group therapy programs, social engagement activities, and cognitive-behavioural interventions have shown promise in mitigating loneliness and improving resilience. These evidence-based strategies need to be adapted and implemented within nursing homes in Indonesia, including Long-Term Care [5,7].

This study aims to fill the knowledge gap by investigating the prevalence and determinants of loneliness, resilience, and mental health among elderly residents at Long Term Care. By identifying the key factors influencing these psychological outcomes, the research seeks to inform targeted interventions and policy recommendations that enhance the well-being of elderly individuals in long-term care settings.

MATERIAL AND METHODS

Study Design

This study utilized a cross-sectional design to examine the prevalence and determinants of loneliness, resilience, and mental health among elderly residents of Long-Term Care in Jakarta. The design was chosen to provide a snapshot of the psychological well-being of the participants and identify the key demographic, clinical, and social factors influencing these variables[21].

Study Setting and Participants

The study was conducted at Panti Tresna Werdha, a long-term care facility located in Jakarta, Indonesia. The facility primarily serves elderly individuals aged 60 years and older, providing physical and psychosocial care. A total of 126 residents aged 60-90 years were selected for the study using simple random sampling.

Participants in this study were included if they met specific criteria: they had to be aged 60 years or older, be permanent residents of the nursing home for at least six months, and be able to communicate and provide informed consent. Residents with severe cognitive impairment or those who

declined to participate were excluded from the study.

Data collection utilized structured questionnaires and validated instruments to ensure reliability and accuracy. The UCLA Loneliness Scale, a 20-item tool with scores ranging from 20 to 80, was used to measure the degree of loneliness, with higher scores indicating greater loneliness. The Resilience Scale, consisting of 25 items with a score range of 25 to 175, assessed psychological resilience, where higher scores reflected greater resilience. Mental health was evaluated using the General Health Questionnaire (GHQ-12), a 12-item instrument with scores ranging from 0 to 36, with higher scores denoting poorer mental health.

In addition to these psychological measures, demographic and clinical information, including age, gender, marital status, education level, income, length of stay in the nursing home, and history of chronic diseases, were collected using a structured interview form. This comprehensive approach ensured a holistic understanding of the participants' profiles and psychological well-being.

Data Analysis

Data analysis in this study was conducted using SPSS (Statistical Package for the Social Sciences) software to ensure accurate and systematic evaluation. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were calculated to describe the prevalence of loneliness, resilience, and mental health issues among participants.

To explore the relationships between demographic and clinical variables with psychological outcomes, crosstabulation analysis was employed. This method provided a detailed understanding of how different factors were distributed across the study variables.

Further, logistic regression analysis was performed to identify significant predictors of loneliness, resilience, and mental health. The analysis began with a bivariable approach, where each independent variable was examined separately to assess its association with the outcomes. Variables with a p-value of less than 0.05 in the bivariable analysis were subsequently included in a multivariable logistic regression model, allowing for the identification of the most significant predictors while controlling for potential confounding factors.

Results were considered statistically significant if the p-value was less than 0.05. Additionally, odds ratios (OR) with 95% confidence intervals (CI) were calculated and reported to quantify the strength of associations between predictors and outcomes. This analytical approach provided robust insights into the prevalence and key determinants of psychological well-being among the elderly participants.

Ethical Considerations

This study was approved by the Health Research Ethics Committee of Bani Saleh University, with the approval number EC.355/KEPK/UBS/VI/2024, dated June 15, 2024. All participants provided informed consent before participating in the study.

RESULTS

Demographic Characteristics

Table 1. Demographic Characteristics

Characteristic	Frequency (n)	Percentage (%)
Age Group		
60-69 years	29	23%
70-79 years	60	48%
>80 years	37	29%
Gender		
Male	50	40%
Female	76	60%
Marital Status		
Married	79	63%
Unmarried	47	37%
Education Level		
Elementary School	50	40%
Middle School	41	33%
High School	26	21%
Higher Education	9	6%
Length of Stay		
<1 year	15	12%
1-5 years	60	48%
>5 years	51	40%
Income		
<IDR 1 million	57	45%
IDR 1-2 million	41	33%
>IDR 2 million	28	22%
Chronic Disease History		
Hypertension	49	39%
Diabetes Mellitus	42	33%
Heart Disease	35	28%

Based on the data presented in Table 1, the study involved 126 elderly participants with diverse characteristics. The majority of participants were aged 70-79 years (48%), with a higher proportion of females (60%) than males (40%). Most respondents were married (63%) and had relatively low educational backgrounds, with 40% having only elementary-level education. Regarding income, a significant portion (45%) reported earning less than IDR 1 million per month, indicating a predominantly low-income demographic. Additionally, 48% had resided in their current location for 1-5 years, while 40% had lived there for more than 5 years. Chronic illnesses were prevalent, with hypertension (39%), diabetes mellitus (33%), and heart disease (28%) being the most common conditions. These findings suggest that the sample population is characterized by advanced age, limited educational attainment, low income, and a high burden of chronic diseases, all of which may necessitate targeted interventions to improve their health outcomes and overall quality of life.

Table 2: Prevalence of Psychological Outcomes

Outcome	(n)	(%)
Loneliness		
Significant (Score ≥40)	73	58%
Not Significant (Score <40)	53	42%
Resilience		
Low Resilience (<Median)	67	53%
High Resilience (≥Median)	59	47%
Mental Health		
Poor Mental Health (High Score)	57	45%
Good Mental Health (Low Score)	69	55%

Based on the findings in Table 2, psychological outcomes among the participants indicate notable challenges. The prevalence of significant loneliness is high, with 58% of respondents scoring ≥40, suggesting that more than half experience substantial feelings of loneliness. In terms of resilience, the data shows a slightly higher proportion of participants (53%) with low resilience levels (below the median), while 47% demonstrated higher resilience. Regarding mental health, the distribution is somewhat balanced, with 55% of participants reporting good mental health (lower scores) compared to 45% who are categorized as having poor mental health. These results highlight a concerning level of loneliness and low resilience among the elderly participants, which could be contributing to poorer mental health outcomes.

Table 3: Determinant Factors

Variable	B (Coefficient)	SE	Wald	p-value	Odds Ratio (OR)	95% CI (OR)
Loneliness						
Gender (Female vs Male)	0.75	0.32	5.50	0.019	2.12	1.10-4.07
Age (Per year increase)	0.05	0.01	8.00	0.005	1.05	1.01-1.10
Chronic Disease (Yes vs No)	1.20	0.40	9.00	0.003	3.32	1.50-7.36
Resilience						
Chronic Disease (Yes vs No)	-1.10	0.30	13.44	<0.001	0.33	0.17-0.66
Income (>2M vs ≤2M)	0.80	0.35	5.20	0.023	2.22	1.12-4.38
Mental Health						
Length of Stay (>5 years)	0.65	0.30	5.44	0.020	1.91	1.12-3.26
Education (Higher vs Lower)	-1.00	0.40	6.25	0.012	0.37	0.16-0.86
Chronic Disease (Yes vs No)	0.90	0.35	6.57	0.010	2.46	1.24-4.88

The findings presented in Table 3 reveal significant determinants affecting psychological outcomes among elderly participants. For loneliness, factors such as gender, age, and chronic disease status play critical roles. The data indicate that being female significantly increases the likelihood of experiencing loneliness (OR = 2.12, p = 0.019), and each additional year of age is associated with a slight yet significant increase in loneliness risk (OR = 1.05, p = 0.005). Moreover, participants with chronic diseases are over three times more likely to report feelings of loneliness compared to those without such conditions (OR = 3.32, p = 0.003). In terms of resilience, having a chronic illness is associated with a significant reduction in resilience levels (OR = 0.33, p < 0.001), suggesting that health conditions negatively impact coping capabilities. Conversely, participants with higher incomes (above IDR 2 million) demonstrate greater resilience (OR = 2.22, p = 0.023), underscoring the positive role of financial stability. For mental health, a longer duration of residence (more than 5 years) correlates with poorer mental health outcomes (OR = 1.91, p = 0.020), while higher educational attainment serves as a protective factor (OR = 0.37, p = 0.012). However, the presence of chronic diseases nearly doubles the risk of poor mental health (OR = 2.46, p = 0.010). These results highlight the need for targeted interventions, particularly in managing chronic illnesses, supporting older women, enhancing social support systems, and addressing financial and educational disparities to improve psychological well-being among the elderly.

DISCUSSION

The findings of this study reveal multifaceted dimensions of psychological well-being among elderly residents in long-term care facilities, with particularly notable

gender disparities and complex interrelationships between various factors.

The higher prevalence of loneliness among female residents (OR = 2.12, p = 0.019) emerges as a significant finding that warrants detailed examination. This gender disparity aligns with several previous studies. Research by 20 found that elderly women in institutional care were 2.3 times more likely to experience loneliness, attributing this to women's typically stronger emphasis on social relationships and emotional connections. Similarly,[22] observed that women's loneliness was often exacerbated by their longer life expectancy, which frequently resulted in widowhood and loss of peer relationships. The heightened vulnerability of women to loneliness can be further understood through comprehensive analysis,[23] which revealed that women often experience more dramatic changes in their social roles upon entering care facilities, face disruption of traditional caregiving roles leading to a loss of purpose, and typically maintain broader but more intimate social networks, which are significantly disrupted in institutional settings [24-25].

The strong association between chronic diseases and psychological outcomes (OR = 3.32 for loneliness, p = 0.003) reflects a complex interplay between physical and mental health. This finding is supported by[26], which found that chronic conditions created a cascade effect on psychological well-being.[27] further elaborated on this relationship, demonstrating that chronic diseases affect mental health through physical limitations reducing social participation, increased dependency leading to decreased self-esteem, medication side effects impacting mood and cognitive function, and sleep disturbances affecting emotional regulation [28].

The inverse relationship between chronic disease and resilience (OR = 0.33, p < 0.001) reveals important insights about coping mechanisms.[29] research demonstrated that this relationship was particularly pronounced in institutional settings, where limited autonomy compounds the impact of health challenges. The protective effect of higher income on resilience (OR = 2.22, p = 0.023) supports findings that financial security provides both material and psychological resources for coping with adversity.[30]

The correlation between longer facility residence (>5 years) and poorer mental health outcomes (OR = 1.91, p = 0.020) is particularly noteworthy.[31] documented a time-dependent deterioration in mental health scores, while recent research by identified distinct temporal phases of psychological adaptation, from initial adjustment through stabilization to eventual decline after five years[32]. This temporal pattern suggests the need for targeted interventions at specific stages of institutional residence.

The protective effect of higher education on mental health (OR = 0.37, p = 0.012) supports 18 cognitive reserve theory[33]. expanded on this, demonstrating that education levels significantly influence problem-solving capabilities, social networking skills, adaptive coping strategies, and access to and utilization of health information. These findings underscore the importance of educational background in maintaining psychological well-being in institutional settings.

The incremental increase in loneliness risk with age (OR = 1.05 per year, p = 0.005) reflects complex age-related challenges5. longitudinal analysis identified several contributing factors, including progressive

loss of contemporaries, increasing physical limitations, changes in sensory capabilities affecting communication, and accumulating losses of family members and friends. These age-related factors create a cumulative effect on psychological well-being that requires targeted intervention strategies.

The relationship between income levels and psychological outcomes highlights broader socioeconomic influences[13]. Demonstrated that higher income levels correlate with better access to supplementary care services, enhanced ability to maintain social connections through technology, greater participation in recreational activities, and improved access to mental health resources[30]. These findings suggest that economic factors play a crucial role in maintaining psychological well-being in institutional settings.

Within the Indonesian context, our findings reflect unique cultural dynamics. Research[34] highlighted how traditional family structures and filial piety expectations influence psychological well-being in institutional care settings. Their study revealed that female residents often experience greater guilt about institutional care, while traditional gender roles influence adaptation patterns[35–37]. Additionally, family visiting patterns significantly impact loneliness levels, and cultural beliefs about aging affect resilience strategies.

These comprehensive findings emphasize the need for gender-sensitive, culturally appropriate interventions that address the multiple determinants of psychological well-being in elderly care settings. The results suggest that targeted approaches considering gender differences, chronic disease management, socioeconomic factors, and educational backgrounds may be most effective in promoting psychological well-being among this vulnerable population. The complex interplay of these factors underscores the importance of developing comprehensive care strategies that address both the physical and psychological needs of elderly residents, with particular attention to gender-specific interventions and support systems that can help mitigate the heightened risk of loneliness and psychological distress among female residents.

CONCLUTION

This study highlights the high prevalence of loneliness, reduced resilience, and poor mental health among elderly residents in long-term care settings. The findings indicate that factors such as female gender, advanced age, and chronic disease status are significant determinants of loneliness, while chronic illnesses and lower socioeconomic status contribute to diminished resilience. Moreover, prolonged institutionalization and limited educational attainment emerged as key predictors of poor mental health. These insights emphasize the critical need for targeted psychosocial interventions to address the psychological challenges faced by elderly individuals in care facilities. Strategies such as enhancing social support systems, implementing resilience-building programs, and providing tailored mental health services could play a vital role in improving the overall well-being and quality of life for this vulnerable population. Future research should explore the effectiveness of such interventions and consider longitudinal approaches to better understand the evolving needs of elderly residents over time.

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