

Depressive Symptoms, Resilience, and Psychological Well-Being Among Older Adults with Non-Communicable Diseases: A Correlational Study

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ABSTRACT

Introduction: Older adults with non-communicable diseases (NCDs) are vulnerable to psychological challenges, including depressive symptoms and reduced psychological well-being. Resilience is recognized as a protective factor that may buffer these negative effects. This study aimed to examine the relationships between depressive symptoms, resilience, and psychological well-being among older adults with NCDs.

Research Methodology: A quantitative study with a cross-sectional correlational design was conducted among 54 older adults selected using total sampling. Data were collected using standardized instruments: the Geriatric Depression Scale (GDS-15), the Connor-Davidson Resilience Scale (CD-RISC-10), and Ryff's Psychological Well-Being Scale. Data were analyzed using Spearman's correlation test to assess relationships between variables.

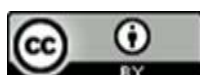
Results: The findings showed significant correlations among all variables. Depressive symptoms were strongly negatively correlated with resilience ($r = -0.906$; $p = 0.005$) and psychological well-being ($r = -0.860$; $p = 0.013$). Resilience demonstrated a strong positive correlation with psychological well-being ($r = 0.835$; $p = 0.019$). These results indicate that higher depressive symptoms are associated with lower resilience and psychological well-being, while higher resilience is associated with better psychological well-being.

Conclusion: Depressive symptoms, resilience, and psychological well-being are significantly interrelated in older adults with NCDs. Interventions focusing on reducing depressive symptoms and strengthening resilience may improve psychological well-being. Integrating mental health screening and resilience-based interventions into routine care for older adults is recommended to enhance overall quality of life.

Keywords: Aged; Depression; Mental Health; Noncommunicable Diseases; Psychological Resilience.



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INTRODUCTION

Older adults living with non-communicable diseases (NCDs) represent a population at heightened risk of psychological vulnerability, particularly depressive symptoms and diminished psychological well-being (Anisman et al., 2024). The global burden of NCDs continues to rise, disproportionately affecting older populations and contributing not only to physical morbidity but also to substantial mental health challenges (Balsara et al., 2025). Evidence indicates that older adults with chronic conditions experience higher rates of depression, reduced functional capacity, and lower quality of life compared to their healthier counterparts (Bansod & Mandi, 2025). These challenges are compounded by age-related transitions such as retirement, loss of social roles, and declining physical independence, making psychological well-being a critical yet often overlooked dimension of healthy aging (Bertollo et al., 2025).

Existing literature consistently demonstrates that depressive symptoms are a key determinant of psychological well-being in later life (Ciubuc-Batcu et al., 2024). Depression among older adults has been associated with impaired cognitive function, decreased social engagement, and increased healthcare utilization (Davoodian et al., 2025). Furthermore, depressive symptoms negatively affect core dimensions of psychological well-being, including self-acceptance, purpose in life, and environmental mastery (De Oliveira et al., 2026). However, the relationship between chronic illness and mental health is not unidirectional. While NCDs contribute to psychological distress, mental health conditions such as depression may also exacerbate disease progression and hinder self-management behaviors (Doğan et al., 2026). This bidirectional relationship underscores the complexity of mental health in older populations (Farida Latif et al., 2025).

In contrast to risk factors, resilience has been increasingly recognized as a protective psychological resource that enables individuals to adapt positively to adversity (Flores et al., 2025). Resilience is associated with better emotional regulation, adaptive coping strategies, and sustained engagement in meaningful activities (Ge et al., 2026). Empirical studies suggest that greater resilience is associated with lower depressive symptoms and improved psychological well-being among older adults. Moreover, resilience may serve as a buffer, mitigating the negative impact of chronic illness and stress on mental health outcomes (Izquierdo et al., 2025). Despite this growing evidence, the interplay between depressive symptoms, resilience, and psychological well-being remains insufficiently understood, particularly in the context of older adults living with NCDs (Giurca et al., 2025).

Previous studies have largely examined these variables in isolation or within general aging populations, often neglecting the specific context of chronic disease. Additionally, much of the existing research has focused on either depression or resilience as independent predictors of well-being, without simultaneously analyzing their interrelationships within a single analytical framework (Maisonave et al., 2026). This limitation restricts a comprehensive understanding of how risk and protective factors interact to shape psychological well-being in later life. Furthermore, there is limited empirical evidence from developing country contexts, including Indonesia, where cultural, social, and healthcare system factors may influence mental health outcomes differently.

This study addresses these gaps by adopting an integrated analytical approach to examine the relationships between depressive symptoms, resilience, and psychological well-being among older adults with NCDs. The novelty of this research lies in its simultaneous assessment of these three constructs within a specific clinical population, providing a more holistic understanding of mental health dynamics in later life. By focusing on older adults with chronic conditions, this

study also provides context-specific evidence relevant to health service planning and intervention design. Accordingly, the objective of this study is to analyze the relationships between depressive symptoms, resilience, and psychological well-being among older adults with non-communicable diseases. The findings are expected to inform the development of integrated mental health strategies that emphasize both risk reduction and resilience enhancement to support healthy aging.

RESEARCH METHODOLOGY

Study Design

This study employed a quantitative cross-sectional correlational design to examine the relationships between depressive symptoms, resilience, and psychological well-being among older adults with non-communicable diseases (NCDs). The cross-sectional approach was selected because it allows assessment of associations between variables at a single point in time, which is appropriate for identifying patterns of relationships in population-based mental health research.

Setting and Participants

The study was conducted at UPTD Puskesmas Denpasar Timur I, Indonesia. Data collection took place between July and August 2025. The study population consisted of older adults diagnosed with one or more non-communicable diseases and registered in the Prolanis (chronic disease management) program. Inclusion criteria were: (1) age ≥ 60 years, (2) diagnosed with at least one NCD, (3) ability to communicate verbally, and (4) willingness to participate. Exclusion criteria included: (1) severe cognitive impairment, (2) acute medical conditions, and (3) incomplete questionnaire responses. Total sampling was applied, whereby all eligible participants during the study period were included. The final sample comprised 54 respondents. As total sampling was used, formal sample size calculation was not applied; however, the sample represents the accessible population within the study setting.

Variables and Measurement

The independent variables were depressive symptoms and resilience, while the dependent variable was psychological well-being. Depressive symptoms were operationally defined as the presence and severity of depressive manifestations in older adults and measured using the Geriatric Depression Scale (GDS-15). Resilience was defined as the individual's capacity to adapt to stress and adversity, measured using the 10-item Connor-Davidson Resilience Scale (CD-RISC-10). Psychological well-being was defined as a multidimensional construct reflecting positive psychological functioning and was measured using Ryff's Psychological Well-Being Scale (18 items). All instruments were previously validated and widely used in geriatric populations. The reliability coefficients (Cronbach's alphas) were 0.885 for psychological well-being and 0.868 for resilience, and the GDS-15 showed acceptable sensitivity and specificity (92% and 89%, respectively). The data used in this study were primary data collected directly from respondents.

Data Collection

Data were collected through structured questionnaires administered directly to participants. Before data collection, respondents were informed about the study objectives and procedures. Written informed consent was obtained from all participants. Trained research assistants facilitated questionnaire completion to ensure comprehension and completeness. Quality control measures included immediate checking of completed questionnaires, clarification of incomplete responses, and standardized data entry procedures to minimize errors.

Data Analysis

Data analysis was performed using IBM SPSS Statistics version 25. Descriptive statistics (mean, standard deviation, frequency, and percentage) were used to summarize respondent characteristics and study variables. Bivariate analysis was conducted using Spearman's rank correlation test to assess relationships between depressive symptoms, resilience, and psychological well-being, as the data were not normally distributed. Multivariate analysis using multiple linear regression was conducted to determine the independent contribution of depressive symptoms and resilience to psychological well-being while controlling for demographic variables. Statistical significance was set at $\alpha = 0.05$.

Ethical Approval

This study received ethical approval from the Health Research Ethics Committee of Institut Teknologi dan Kesehatan Bali (ITEKES Bali) under approval number 04.224/KEPITEKES-BALI/VII/2025. All procedures adhered to ethical standards for human research. Participants provided written informed consent before participation, and confidentiality and anonymity were strictly maintained throughout the study.

RESULT

Table 1. Characteristics of Respondents (N = 54)

Variable	Category	n	%
Gender	Female	32	59.2
	Male	22	40.8
Age (years)	60–69	45	83.3
	70–78	9	16.7
Marital Status	Married	47	87.0
	Widowed/Divorced	7	13.0
Occupation	Unemployed/Retired	28	51.8
	Employed	26	48.2
Number of NCDs	1 NCD	31	57.4
	≥ 2 NCDs	23	42.6

Most respondents were female (59.2%) and aged 60–69 years (83.3%), with a mean age of 65 years. The majority were married (87.0%), and slightly more than half were unemployed or retired (51.8%). Most participants had one NCD (57.4%).

Table 2. Correlation Between Variables

Variables	r	95% CI	p-value
Depressive Symptoms – Resilience	-0.906	-0.94 to -0.85	0.005
Depressive Symptoms – Psychological Well-Being	-0.860	-0.92 to -0.77	0.013
Resilience – Psychological Well-Being	0.835	0.74 to 0.90	0.019

Depressive symptoms showed a strong negative correlation with resilience ($r = -0.906$) and psychological well-being ($r = -0.860$). Conversely, resilience was strongly positively correlated with psychological well-being ($r = 0.835$). All relationships were statistically significant ($p < 0.05$), indicating meaningful associations among variables.

Table 3. Multivariate Analysis: Predictors of Psychological Well-Being

Variable	β	95% CI	p-value
Depressive Symptoms	-0.62	-0.81 to -0.43	0.001
Resilience	0.54	0.31 to 0.77	0.002

Multiple linear regression analysis indicated that depressive symptoms and resilience were significant predictors of psychological well-being. Depressive symptoms had a significant

negative effect ($\beta = -0.62$; $p = 0.001$), while resilience had a significant positive effect ($\beta = 0.54$; $p = 0.002$). These findings suggest that higher depressive symptoms reduce psychological well-being, whereas higher resilience enhances it.

This study examined the relationships between depressive symptoms, resilience, and psychological well-being among older adults with non-communicable diseases. The findings demonstrate that the sample was predominantly female, within the early elderly age group, and living with at least one chronic condition. Bivariate analysis revealed strong and statistically significant relationships among all variables. Depressive symptoms were inversely associated with both resilience and psychological well-being, indicating that higher levels of depression correspond to lower adaptive capacity and reduced psychological functioning. In contrast, resilience was positively associated with psychological well-being, underscoring its protective role. Multivariate analysis further confirmed that depressive symptoms and resilience independently predict psychological well-being. Depressive symptoms emerged as the strongest negative predictor, while resilience contributed substantially to positive outcomes. These findings underscore the dual role of risk and protective factors in shaping mental health outcomes in older adults with chronic diseases. Overall, the results suggest that the balance between depressive symptoms and resilience influences psychological well-being in later life. Interventions targeting both the reduction of depressive symptoms and the strengthening of resilience may be critical for improving mental health and quality of life among older adults with NCDs.

DISCUSSION

This study examined the interrelationships between depressive symptoms, resilience, and psychological well-being among older adults with non-communicable diseases (NCDs). The findings demonstrate three key patterns. First, depressive symptoms were strongly and negatively associated with both resilience and psychological well-being. Second, resilience was positively associated with psychological well-being. Third, multivariate analysis confirmed that depressive symptoms and resilience independently predict psychological well-being, with depressive symptoms emerging as the stronger predictor. These results indicate that psychological well-being in later life is shaped by the dynamic interaction between risk factors (depressive symptoms) and protective factors (resilience) (Megari & Argyriadou, 2025).

From a theoretical perspective, these findings align with the biopsychosocial model, which posits that health outcomes are influenced by the interaction of biological, psychological, and social factors (Mezza et al., 2025). In the context of older adults with NCDs, chronic illness represents a persistent biological stressor that interacts with psychological processes such as depression and resilience. Depressive symptoms can be understood as maladaptive psychological responses that impair coping mechanisms, reduce motivation, and disrupt emotional regulation (Millar et al., 2024). These processes directly undermine core components of psychological well-being, including autonomy, purpose in life, and environmental mastery (Mohd Tamil et al., 2024).

Conversely, resilience functions as an adaptive psychological resource that facilitates effective coping and emotional regulation (Ouyang et al., 2026). The strong positive association between resilience and psychological well-being supports resilience theory, which conceptualizes resilience as a dynamic capacity enabling individuals to maintain or regain mental health despite adversity (Reichelt et al., 2025). In this study, resilience appears to buffer the negative impact of depressive symptoms, suggesting a compensatory mechanism where protective factors mitigate risk exposure. Additionally, Ryff's multidimensional model of psychological well-being provides a useful framework for interpreting these findings (Srambikkal Vinesh et al., 2026). Depressive

symptoms negatively affect multiple domains of well-being, particularly self-acceptance and purpose in life. At the same time, resilience enhances individuals' ability to maintain positive relationships, foster personal growth, and find meaning in life. The interaction between these constructs highlights the importance of integrating both deficit-based (reducing depression) and strength-based (enhancing resilience) approaches in mental health interventions (Suprpto et al., 2025).

The findings of this study are consistent with a growing body of global research demonstrating strong associations between depression, resilience, and psychological well-being in older populations. Studies conducted in Europe and North America have reported that depressive symptoms are among the strongest predictors of reduced psychological well-being in older adults, particularly those with chronic conditions (Ticinesi et al., 2026). Similarly, research in Asian contexts has highlighted the protective role of resilience in promoting mental health and quality of life among elderly individuals (Wu, 2025). In Southeast Asia, several studies have reported comparable findings, indicating that older adults with NCDs are at increased risk of depression and reduced psychological well-being. For instance, research in Indonesia and neighboring countries has shown that chronic disease burden, social isolation, and limited access to mental health services contribute to psychological distress in older populations (Zhou et al., 2026). The positive association between resilience and well-being observed in this study is also supported by regional evidence that emphasizes the roles of social support, coping strategies, and cultural values in fostering resilience (Zhu et al., 2025).

The convergence of findings across global and regional studies suggests that the relationships between depressive symptoms, resilience, and psychological well-being are robust and generalizable across diverse contexts. This consistency may be attributed to the universal nature of aging-related challenges and the common psychological mechanisms underlying adaptation to chronic illness. However, some contextual factors may explain variations in the strength of associations observed in this study. The exceptionally strong correlations identified may reflect the relatively homogeneous sample, where participants share similar health conditions and socio-demographic characteristics. Additionally, cultural factors such as collectivism, family support systems, and community engagement may influence resilience and psychological well-being in ways that differ from Western contexts. Healthcare system factors may also contribute to divergence. In settings with limited integration of mental health services into primary care, older adults may experience unmet psychological needs, thereby strengthening the observed associations between depression and well-being. Conversely, in systems with comprehensive geriatric care, the impact of depressive symptoms may be mitigated through early detection and intervention.

Strengths and Limitations

This study has several strengths, including an integrated analytical approach that simultaneously examines depressive symptoms, resilience, and psychological well-being, as well as the use of validated instruments that enhance reliability. It also contributes context-specific evidence from Indonesia, addressing gaps in research from low- and middle-income countries. However, limitations should be noted. The cross-sectional design precludes causal inference, while the small sample size and single-site setting limit generalizability. Self-reported measures may introduce response bias, and key confounding variables such as socioeconomic status, social support, and disease severity were not included. Despite these limitations, the study provides valuable insights into the interaction between risk and protective factors in older adults with

NCDs. Future research should employ longitudinal designs, larger samples, and broader contextual variables to strengthen evidence and inform targeted interventions.

CONCLUSION

This study aimed to examine the relationships between depressive symptoms, resilience, and psychological well-being among older adults with non-communicable diseases. The findings demonstrate that depressive symptoms are strongly associated with lower resilience and reduced psychological well-being, while resilience is positively associated with better psychological well-being. These results confirm that both risk and protective psychological factors play a critical role in shaping mental health outcomes in later life. The study highlights that psychological well-being among older adults with NCDs is not solely determined by disease burden but is significantly influenced by psychological adaptation mechanisms. Depressive symptoms act as a key risk factor, whereas resilience functions as an essential protective resource that can buffer negative effects and support mental health. Based on these findings, policy and practice should prioritize the integration of mental health screening into routine NCD care, particularly for early identification of depressive symptoms. Additionally, interventions to strengthen resilience, such as psychosocial support, community-based programs, and coping skills training, should be incorporated into primary health care services. A comprehensive, integrated approach that addresses both risk reduction and resilience enhancement is essential to improving psychological well-being and overall quality of life among older adults.

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Conflict of Interest

The authors declare that there is no conflict of interest related to this study.

Authors' Contributions

Dian Shanti Kusuma conceptualized the study, designed the methodology, conducted data collection, performed data analysis, and drafted the manuscript. Ida Ayu Putri Wulandari contributed to study design, data interpretation, and critical revision of the manuscript. I Gusti Ayu Rai Rahayuni contributed to data analysis, interpretation of findings, and manuscript revision. Anak Agung Ayu Yuliati Darmini contributed to supervision, conceptual guidance, and critical review of the manuscript. All authors approved the final version of the manuscript and are accountable for all aspects of the work.

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