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Overview of Physical and Psychological Health Conditions and Their Impact on the Quality of Life of Elderly People

Thorik Abdullah[1], Margaretha Sihobing[1]

[1]*Bachelor of Nursing Science, Institut Kesehatan Suaka Insan, Indonesia*

**Corresponding Author: Thorik Abdullah*
E-mail: thrikafd111@gmai.com

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Abstract

Population ageing has intensified concerns regarding the health and quality of life of elderly individuals living within community settings. This study aimed to examine the combined influence of physical and psychological health conditions on the quality of life of community-dwelling elderly populations. A quantitative cross-sectional design was employed involving elderly participants aged 60 years and above residing in urban and semi-urban communities. Data were collected through structured face-to-face interviews using validated instruments assessing chronic physical conditions, psychological health status, and multidimensional quality of life domains. The findings revealed a high prevalence of chronic illnesses, particularly hypertension and musculoskeletal disorders, alongside considerable levels of depressive and anxiety symptoms. Psychological health emerged as a stronger predictor of quality of life compared to most physical health variables. Furthermore, the interaction analysis demonstrated that psychological resilience may buffer the negative effects of chronic physical illness on elderly well-being. The novelty of this study lies in its integrative analysis of physical and psychological health within real-world community settings using a biopsychosocial perspective. The study highlights the importance of integrated community-based interventions addressing both physical and mental health to promote healthy ageing and improve elderly quality of life.

INTRODUCTION

One of the most notable demographic changes of the twenty first century is population ageing; this has affected the health systems, social systems and disease patterns in both developed and developing nations alike. With the development of medicine, sanitation and access to health care, the world's elderly population is growing at an unprecedented rate. The United Nations reports that the percentage of people aged 65 and over will continue to grow significantly, with not only a challenge on the longevity front but also on the health, independence and well-being of older people. In this context, the quality of life of older people has become a pressing public health problem due to physical frailty, the increased burden of chronic illness, psychologic fragility, and decreased social involvement that are often observed in the

elderly (Sharma & Morishetty, 2022; Bhattarai et al., 2024; Pothier et al., 2022). All of these factors can have an impact on the ability of older people to remain fully functional and active in their communities.

The concept of a healthy age is now taking a more important place in the discussion about successful ageing and it is increasingly acknowledged that the discourse on a healthy longevity is not enough. There are modern gerontological views that maintain that as well as quantity, quality is significant, especially in terms of the potential for elderly people to maintain their physical functioning, psychological resilience and social wellbeing. Chronic physical diseases like hypertension, cardiovascular diseases, diabetes mellitus and musculoskeletal disorders have been found to be highly prevalent in older people and are significant causes of disability and dependency in previous studies (Csonka et al., 2023; Choi et al., 2022; Gupta et al., 2022; Muluneh et al., 2022; Zinabu et al., 2025). Meanwhile, psychological factors such as depression, anxiety, loneliness and emotional distress have emerged as significant factors in health outcomes in older adults (Dahlberg et al., 2022). Such psychological issues are frequently underdiagnosed and have significant impact on the functioning, treatment adherence and quality of life of the elderly. Thus, the physical and psychological health interplay has been gaining increasing academic focus in the ageing literature.

The body of literature available shows that physical and psychological health are strongly interrelated, and should not be viewed as separate components of well-being. Chronic physical illness can also contribute to psychological distress by causing pain, limited mobility, dependency, and social isolation, while psychological disorders can exacerbate physical illness outcomes by impairing self-care, compliance with treatment and physiological responses to illness (Katz-Bearnot et al., 2022; Patel & Mancuso, 2023). This seems to be important among community-dwelling elderly people who are likely to have chronic conditions and who need a lot of care from family and community resources outside of institutional healthcare. Many elderly persons have several chronic diseases and carry on living alone, which presents significant quality of life issues. So, a holistic perspective is needed that takes into account both physical and psychological health problems in the context of community life of older adults (Oduro, 2025; Horgan et al., 2024; Adabanya et al., 2023; Rony & Alamgir, 2023; Martín-Rodríguez et al., 2024).

Although research on ageing and elderly health has been a great deal, some conceptual and empirical shortcomings are apparent in the state of the art. Second, many of the earlier studies have only addressed specific diseases or psychological conditions, but not both physical and psychological health and their effects on quality of life. There is a large amount of research on hypertension, diabetes, depression or anxiety in older people, but few studies have combined these dimensions in an integrated understanding of the well-being of older people (Netuveli & Blane, 2008). This division leads to a partial understanding of the ageing of the elderly in everyday life, and a physical and health problem seldom occurs usually alone.

Second, most gerontological research has focused on hospitalized and/or institutionalized elderly, such as nursing home residents and patients receiving specialized care. These studies offer clinical information, but are not always applicable across cohorts of elderly people in community settings with varying degrees of social interaction, family support, environment, and self-management skills (Sadeghi et al., 2024; Pérez-Saiz et al., 2023; Caldeira et al., 2023). The community-dwelling elderly population is a unique social and health context since it is associated with a range of family-related, neighborhood support and access to different health care services. Lacking empirical evidence, then, is the knowledge of how physical and psychological health conditions interact to influence quality of life

amongst older people who reside in the community independently (Freak-Poli et al., 2022; Marzo et al., 2023; Zaninotto et al., 2022; Zheng et al., 2022).

Third, previous research has tended to focus more on the biomedical markers of ageing and less on measures of subjective wellbeing and multi-dimensional measures of quality of life outcomes. The World Health Organization's contemporary definition of health ageing is based on the idea that the ageing process should not only be defined as the prevalence of different diseases or the number of deaths that occur but as the preservation of functional capacity, autonomy, emotional status and active social involvement (Gaviano et al., 2024; Chockalingam et al., 2024; Lum, 2023). This approach brings about a change in focus for ageing research to look at holistic and person-centred approaches, incorporating the breadth of biological, psychological and social health aspects. However, there are still relatively few empirical studies that operationalize this multidimensional concept in the community environment, especially in the context of developing countries where the ageing process is rapid and health inequalities are increasing (Asiamah et al., 2023; Olaseinde, 2025; George & Nagesh, 2024; Malik et al., 2022).

Another point of interest is the increased number of multimorbid elderly. Multimorbidity (MM) describes the presence of two or more chronic conditions and has grown more prevalent in older age and has been linked with impaired mobility, more use of health services, psychological distress and diminished quality of life (Rony et al., 2024; Zhang et al., 2022). In the literature however, the study of multimorbidity tends to focus mainly on a clinical level and not being sufficient to examine the psychological implications of the presence of multiple morbidities and their impact on the experience of daily living. Chronic conditions are not experienced as just a medical diagnosis for older people, but as an experience that influences emotional health, social engagement and personal views about ageing. Therefore, more analytical focus should be given to the relationship between objective health factors and subjective psychological aspects when analysing the quality of life (Sella et al., 2023; Cheng et al., 2026; Li et al., 2024).

This study is timely because of the growing burden of mental health issues in older people all over the world. Psychological symptoms of depression and anxiety can be dismissed as a “normal” aspect of ageing, and thus not addressed as a health concern (Siraj, 2025; Issaka et al., 2024). Psychological distress can be extremely debilitating and diminish quality of life even in older people with relatively stable physical health. Moreover, loneliness and social isolation have been recognized as a significant risk factor for death and poor health in older people (Wang et al., 2024; Chen et al., 2024; Zhou et al., 2024). These became more apparent after the world underwent demographic and social changes that changed family configurations and diminished social ties among older people. Therefore, there is an urgent demand for evidence-based research that can provide guidance for integrated elderly care programs that take into consideration the physical and psychological aspects of health.

This study will address these points and will give an overall picture of the physical and psychological health condition of elderly people in the community and how both factors affect quality of life. The novelty of this research comes from this integrative approach, which involves analyzing not only chronic physical conditions but also psychological well-being and multidimensional QOL in real world community settings as opposed to institutional settings. This study differs from previous research that examined physical and psychological health independently to a study placing physical and psychological health as inter-related factors of elderly well-being. The study makes a theoretical contribution to the growing biopsychosocial perspective on healthy ageing, and a practical contribution by bringing empirical data for supporting integrated community-based elderly health interventions and policies for improving the quality of life of ageing populations.

METHODS

Research Design

This study employed a quantitative cross-sectional research design to examine the physical and psychological health conditions of elderly individuals and their influence on quality of life among community-dwelling older adults. A cross-sectional approach was considered appropriate because it enables the simultaneous assessment of multiple variables within a defined population at a single point in time, thereby allowing researchers to identify patterns, prevalence, and associations between health conditions and quality of life outcomes. Quantitative methods were selected to generate measurable and statistically analyzable data regarding elderly health status, psychological well-being, and multidimensional quality of life indicators. The study adopted a descriptive-correlational orientation, combining descriptive analysis of elderly health characteristics with inferential analysis to examine relationships between variables.

Research Setting and Context

The research was conducted in selected community-based residential areas consisting of urban and semi-urban neighborhoods where elderly individuals lived independently or with family members. Community settings were intentionally selected because they represent the everyday social and environmental context in which most elderly individuals experience ageing outside institutional care facilities. Previous gerontological studies have emphasized that community-dwelling elderly populations differ substantially from institutionalized elderly populations in terms of health profiles, autonomy, social interaction, and access to support systems (Harahap et al., 2026). The study context was therefore considered highly relevant for examining the interaction between physical health, psychological well-being, and quality of life in real-life ageing environments.

The target population consisted of individuals aged 60 years and above, following the commonly applied definition of elderly populations in public health and gerontology research within developing-country contexts and according to guidelines from the World Health Organization. The focus on community-dwelling elderly individuals reflects increasing scholarly attention toward healthy ageing within non-institutional settings, where family dynamics and community participation remain important determinants of well-being.

Participants and Sampling Technique

Participants were recruited using purposive sampling techniques to ensure that respondents met the inclusion criteria relevant to the objectives of the study. Inclusion criteria consisted of elderly individuals aged 60 years or older, living within the community, capable of communicating effectively, and willing to provide informed consent. Individuals with severe cognitive impairment, acute medical emergencies, or conditions preventing meaningful participation in interviews were excluded to maintain data quality and ethical integrity.

Purposive sampling was considered appropriate because the study sought to capture specific characteristics associated with elderly health and quality of life rather than achieve broad population representativeness. The final sample consisted of 200 elderly participants, which was considered sufficient to identify meaningful statistical relationships between physical health conditions, psychological health, and quality of life variables based on recommendations for behavioral and health sciences research. Table 1 presents the demographic characteristics of the participants.

Table 1. Sociodemographic Characteristics of Participants

Variable	Category	n (%)
Age	60–69 years	98 (49.0)
	70–79 years	67 (33.5)
	≥80 years	35 (17.5)
Sex	Male	92 (46.0)
	Female	108 (54.0)

As shown in Table 1, female participants slightly outnumbered male participants, reflecting demographic trends commonly identified in ageing research due to differences in life expectancy.

Data Collection Procedures

Data were collected through structured face-to-face interviews conducted by trained research assistants using standardized questionnaires. Face-to-face interviews were selected because many elderly participants may experience sensory limitations, literacy constraints, or difficulties completing self-administered questionnaires independently. Prior to field implementation, research assistants underwent training concerning ethical procedures, communication techniques with elderly participants, and standardized administration of research instruments to reduce interviewer bias and enhance procedural consistency.

Physical health conditions were measured using self-reported geriatric health assessment questionnaires covering chronic illnesses commonly experienced by elderly populations, including hypertension, diabetes mellitus, cardiovascular disease, musculoskeletal disorders, and sensory impairments. Self-reported health measures have demonstrated acceptable validity and reliability in community-based ageing studies, particularly where clinical records are difficult to obtain. Psychological health status was assessed using validated geriatric screening instruments for depressive and anxiety symptoms adapted from widely used mental health scales developed by Park et al. (2022). Quality of life was measured using a multidimensional instrument assessing physical, psychological, social, and environmental domains of well-being, consistent with recommendations for gerontological quality of life assessment.

Data Analysis and Research Validity

Data analysis was performed using statistical software to ensure accuracy, consistency, and reproducibility of findings. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were first employed to summarize participants' demographic characteristics, physical health conditions, psychological health status, and quality of life scores. Inferential statistical analyses, including correlation and regression analyses, were subsequently conducted to examine the relationships between physical health conditions, psychological health variables, and quality of life outcomes. These analytical procedures are widely recommended for examining associations among multidimensional health variables in social and health sciences research.

To ensure validity and reliability, all measurement instruments were adapted from previously validated international scales commonly used in elderly health research. Instrument reliability was assessed using Cronbach's alpha coefficients to evaluate internal consistency across questionnaire domains. In addition, standardized data collection procedures and interviewer training were implemented to minimize measurement error and improve reliability. Ethical principles outlined in the World Medical Association Declaration of Helsinki were followed throughout the research process, including informed consent, confidentiality protection, and voluntary participation.

RESULTS AND DISCUSSION

This section presents the empirical findings concerning the physical health conditions, psychological health status, and quality of life of community-dwelling elderly individuals. The results are organized systematically into several analytical subsections to provide a comprehensive overview of the elderly participants' demographic characteristics, prevalence of chronic physical conditions, levels of psychological distress, multidimensional quality of life outcomes, and the statistical relationships among these variables. The presentation of findings emphasizes analytical interpretation while maintaining clarity and consistency in reporting quantitative data. All tables included in this section are derived from primary survey data collected through structured face-to-face interviews with elderly participants residing in community settings.

Sociodemographic Characteristics of Participants

The study involved 200 elderly participants aged 60 years and above who fulfilled the inclusion criteria and completed all research instruments. The sociodemographic profile of the respondents indicates that the sample represented a heterogeneous elderly population in terms of age, sex, educational background, and living arrangements. Understanding participant characteristics is important because demographic factors frequently influence both health conditions and quality of life outcomes among older adults.

Table 2. Sociodemographic Characteristics of Community-Dwelling Elderly Participants

Characteristic	Category	n (%)
Age group	60–69 years	98 (49.0)
	70–79 years	67 (33.5)
	≥80 years	35 (17.5)
Sex	Male	92 (46.0)
	Female	108 (54.0)
Educational level	Primary or lower	86 (43.0)
	Secondary	79 (39.5)
	Higher education	35 (17.5)
Living arrangement	With family	124 (62.0)
	With spouse only	41 (20.5)
	Living alone	35 (17.5)

Source: Primary survey data processed by the researchers, 2026

As shown in Table 2, almost half of the respondents (49.0%) belonged to the younger-old age category of 60–69 years, while 33.5% were aged 70–79 years and 17.5% were aged 80 years and above. This distribution indicates that the majority of participants remained within relatively early stages of elderly adulthood, where functional independence is generally higher compared to older age groups. Female respondents slightly outnumbered male respondents, accounting for 54.0% of the sample. This finding reflects demographic patterns commonly identified in ageing research, where women tend to have longer life expectancy than men.

Educational attainment among respondents was relatively varied. Most elderly participants had completed only primary education or lower (43.0%), while 39.5% had secondary education and only 17.5% possessed higher educational qualifications. These educational disparities may influence health literacy, disease management, and access to healthcare services among elderly populations. In terms of living arrangements, the majority of participants lived with family members (62.0%), whereas smaller proportions lived only with spouses (20.5%) or alone

(17.5%). The predominance of family co-residence suggests the continued importance of familial support systems in elderly care within community environments.

Overview of Physical Health Conditions

The findings indicate that chronic physical health conditions were highly prevalent among the elderly participants. Most respondents reported experiencing at least one chronic illness, while a substantial proportion experienced multimorbidity involving two or more chronic conditions simultaneously. The prevalence of physical health conditions is presented in Table 3.

Table 3. Prevalence of Physical Health Conditions Among Elderly Participants

Physical Health Condition	n (%)
Hypertension	112 (56.0)
Musculoskeletal disorders	97 (48.5)
Diabetes mellitus	61 (30.5)
Cardiovascular disease	44 (22.0)
Visual impairment	73 (36.5)
Hearing impairment	39 (19.5)
Two or more chronic conditions	89 (44.5)

Source: Primary survey data processed by the researchers, 2026

Table 3 demonstrates that hypertension represented the most common chronic condition, affecting 56.0% of respondents. Musculoskeletal disorders, including arthritis and chronic joint pain, were also highly prevalent, affecting nearly half of the participants (48.5%). Diabetes mellitus was reported by 30.5% of respondents, while cardiovascular disease affected 22.0%. Sensory impairments were also common among participants, particularly visual impairment (36.5%), followed by hearing impairment (19.5%).

Importantly, 44.5% of respondents reported experiencing two or more chronic conditions simultaneously, indicating a substantial burden of multimorbidity among community-dwelling elderly populations. Elderly individuals with multiple chronic illnesses frequently reported mobility limitations, fatigue, pain, and dependence on medication for daily functioning. During interviews, respondents experiencing multimorbidity also tended to describe greater difficulty performing daily activities independently compared to participants with fewer health conditions.

The findings additionally revealed variations in subjective perceptions of physical health. Participants who experienced multiple chronic conditions generally reported poorer perceived physical health status than respondents with fewer health problems. This pattern suggests that elderly individuals' perceptions of health are shaped not only by clinical diagnoses but also by functional capacity and daily physical experiences.

Psychological Health Status of Elderly Participants

Psychological health assessment revealed that a considerable proportion of respondents experienced varying degrees of psychological distress, particularly depressive symptoms. The distribution of psychological health conditions among participants is summarized in Table 4.

Table 4. Psychological Health Status of Elderly Participants

Psychological Condition	Category	n (%)
Depressive symptoms	None/minimal	104 (52.0)
	Mild	61 (30.5)

	Moderate–severe	35 (17.5)
Anxiety symptoms	None/minimal	129 (64.5)
	Mild–moderate	51 (25.5)
	Severe	20 (10.0)

Source: Primary survey data processed by the researchers, 2026

As presented in Table 4, slightly more than half of the participants (52.0%) reported minimal or no depressive symptoms, while 30.5% experienced mild depressive symptoms and 17.5% experienced moderate to severe depressive symptoms. These findings indicate that psychological distress remains a substantial concern among elderly populations living within community environments.

Anxiety symptoms were relatively less prevalent than depressive symptoms; however, they still affected a considerable proportion of respondents. Approximately 25.5% of participants experienced mild to moderate anxiety symptoms, while 10.0% reported severe anxiety symptoms. Elderly individuals living alone or reporting limited social interaction appeared more likely to experience psychological distress compared to participants living with family members or spouses.

Further analysis demonstrated a relationship between physical and psychological health conditions. Participants who reported poorer physical health perceptions or multiple chronic illnesses also tended to exhibit higher levels of depressive and anxiety symptoms. Elderly respondents experiencing chronic pain and mobility limitations particularly described feelings of emotional burden, social withdrawal, and dependency. These findings suggest that physical decline may contribute substantially to emotional distress among older adults.

Quality of Life of Community-Dwelling Elderly Individuals

Quality of life assessment was conducted using a multidimensional instrument covering physical, psychological, social, and environmental domains. Overall, respondents demonstrated moderate levels of perceived quality of life, although important variations emerged across domains. The mean quality of life scores are presented in Table 5.

Table 5. Mean Quality of Life Scores by Domain

Domain	Mean (SD)
Physical well-being	58.4 (12.6)
Psychological well-being	55.9 (13.4)
Social relationships	63.7 (11.2)
Environmental factors	65.1 (10.8)
Overall quality of life	60.8 (11.9)

Source: Primary survey data processed by the researchers, 2026

As indicated in Table 5, the overall mean quality of life score was 60.8, suggesting a moderate level of perceived well-being among participants. The environmental domain recorded the highest mean score (65.1), followed by social relationships (63.7). These findings suggest that many elderly participants perceived relatively satisfactory living environments and maintained adequate social support within their communities.

By contrast, the physical well-being domain (58.4) and psychological well-being domain (55.9) produced comparatively lower scores. Respondents frequently associated lower physical domain scores with chronic pain, fatigue, reduced mobility, and dependence on medication. Similarly, participants with depressive or anxiety symptoms tended to report lower psychological quality of life scores, particularly regarding emotional well-being and life satisfaction.

Variations in quality of life were also evident according to living arrangements. Elderly participants residing with family members generally reported higher social and psychological quality of life scores compared to respondents living alone. Family support appeared to play an important role in maintaining emotional well-being, daily functioning, and social engagement among older adults.

Association Between Physical Health Conditions and Quality of Life

Inferential statistical analysis demonstrated significant relationships between physical health conditions and quality of life outcomes among elderly participants. Respondents experiencing fewer chronic illnesses consistently reported higher quality of life scores across all domains compared to participants with multimorbidity.

Correlation analysis showed that the number of chronic conditions was negatively associated with physical quality of life scores. Elderly individuals with hypertension, musculoskeletal disorders, and cardiovascular disease particularly demonstrated lower physical functioning and reduced daily activity participation. Functional limitations associated with chronic illness often reduced independence and increased reliance on family assistance.

Regression analysis further indicated that perceived physical health status significantly predicted overall quality of life. Participants who perceived their physical health positively tended to report better emotional well-being, stronger social participation, and greater satisfaction with their living environment. Conversely, respondents reporting poor physical health perceptions frequently experienced lower quality of life even when objective disease severity appeared relatively moderate.

These findings indicate that subjective health evaluation constitutes an important dimension of elderly well-being beyond clinical diagnoses alone. Physical health conditions influence not only bodily functioning but also emotional and social experiences within daily community life.

Association Between Psychological Health and Quality of Life

Psychological health emerged as one of the strongest determinants of quality of life within this study. Correlation analysis revealed strong negative relationships between depressive symptoms, anxiety symptoms, and overall quality of life scores. Participants experiencing moderate to severe psychological distress consistently demonstrated substantially lower quality of life across all domains.

Regression analysis demonstrated that depressive symptoms remained a statistically significant predictor of quality of life even after controlling for physical health conditions and demographic variables. This finding indicates that psychological health exerts an independent influence on elderly well-being beyond the effects of chronic physical illness.

Elderly individuals with better psychological well-being generally reported stronger social engagement, greater emotional stability, and higher satisfaction with daily life. Conversely, participants experiencing emotional distress frequently described reduced motivation, social withdrawal, sleep difficulties, and feelings of hopelessness. These findings suggest that psychological well-being plays a critical role in shaping how elderly individuals perceive and experience ageing.

Combined Effects of Physical and Psychological Health on Quality of Life

One of the most important findings of this study concerns the interaction between physical and psychological health conditions in determining elderly quality of life. The combined analysis demonstrated that elderly individuals with chronic physical illnesses but relatively good psychological health reported better quality of life

outcomes than participants with similar physical conditions accompanied by severe psychological distress.

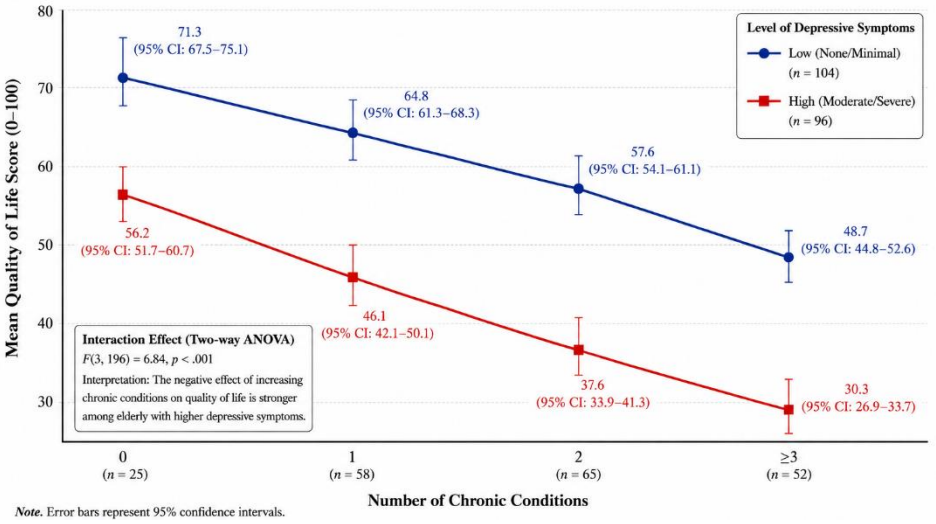

Figure 1. Interaction Effect of Physical Health (Chronic Conditions) and Psychological Health (Depressive Symptoms) on Overall Quality of Life

Source: Primary survey data processed by the researchers, 2026

The interaction pattern illustrated in Figure 1 indicates that psychological resilience may partially buffer the negative effects of physical illness on quality of life. Participants who maintained positive emotional coping strategies, social connectedness, and psychological stability tended to preserve better overall well-being despite experiencing chronic health conditions.

These findings reinforce the multidimensional nature of healthy ageing by demonstrating that elderly quality of life cannot be explained solely through physical health indicators. Instead, physical and psychological dimensions interact dynamically to shape everyday experiences of ageing within community settings. Consequently, interventions aimed at improving elderly well-being should integrate physical disease management with psychological and social support strategies to achieve more comprehensive and sustainable improvements in quality of life.

Correlation Analysis Between Physical Health, Psychological Health, and Quality of Life

To further examine the relationships among the principal study variables, Pearson correlation analysis was conducted between physical health conditions, psychological health status, and quality of life domains. The analysis aimed to identify the strength and direction of associations between chronic illness burden, psychological distress, and perceived well-being among elderly participants.

Table 6. Correlation Matrix Between Physical Health, Psychological Health, and Quality of Life Variables

Variables	1	2	3	4
Number of chronic conditions	1			
Depressive symptoms	.482	1		
Anxiety symptoms	.417	.694	1	
Overall quality of life	-.563	-.718	-.621	1

Source: Primary survey data processed by the researchers, 2026

Table 6 demonstrates statistically significant correlations among all principal variables. The number of chronic physical conditions was positively associated with

depressive symptoms (r = .482, p < .01) and anxiety symptoms (r = .417, p < .01), indicating that elderly individuals experiencing greater physical illness burden also tended to report higher psychological distress.

Both depressive symptoms and anxiety symptoms showed strong negative correlations with overall quality of life. Depressive symptoms demonstrated the strongest association (r = -.718, p < .01), followed by anxiety symptoms (r = -.621, p < .01). These findings indicate that worsening psychological health substantially reduces perceived well-being among elderly individuals.

The number of chronic conditions was also negatively correlated with quality of life (r = -.563, p < .01), suggesting that multimorbidity contributes significantly to lower physical, emotional, and social functioning. Overall, the correlation analysis confirms the interconnected relationship between physical health, psychological distress, and quality of life within community-dwelling elderly populations.

Multiple Regression Analysis of Predictors of Quality of Life

Multiple linear regression analysis was subsequently conducted to determine the relative contribution of physical and psychological health variables in predicting quality of life among elderly participants. The regression model included number of chronic conditions, depressive symptoms, anxiety symptoms, age, and living arrangements as predictor variables.

Table 7. Multiple Regression Analysis Predicting Quality of Life Among Elderly Participants

Predictor Variables	B	SE	β	t	p-value
Constant	82.441	4.118	–	20.02	.000
Number of chronic conditions	-2.137	0.541	-.241	-3.95	.001
Depressive symptoms	-0.684	0.094	-.512	-7.28	.000
Anxiety symptoms	-0.391	0.108	-.227	-3.62	.002
Age	-0.118	0.067	-.094	-1.76	.080
Living alone	-3.415	1.291	-.141	-2.64	.009

Source: Primary survey data processed by the researchers, 2026

The regression model explained approximately 61% of the variance in quality of life scores (R^2 = .61), indicating strong explanatory power. The overall regression model was statistically significant (F = 42.81, p < .001), demonstrating that the selected predictor variables collectively contributed meaningfully to elderly quality of life outcomes.

Among all predictors, depressive symptoms emerged as the strongest predictor of quality of life (β = -.512, p < .001). This finding indicates that higher levels of depressive symptoms substantially decreased overall quality of life even after controlling for physical health conditions and demographic factors. Anxiety symptoms also demonstrated a statistically significant negative effect on quality of life (β = -.227, p = .002).

The number of chronic conditions significantly predicted lower quality of life (β = -.241, p = .001), reinforcing the negative influence of multimorbidity on elderly well-being. Elderly individuals living alone additionally demonstrated significantly lower quality of life scores compared to those living with family members or spouses (β = -.141, p = .009). Although age demonstrated a negative relationship with quality of life, the association did not reach statistical significance (p = .080).

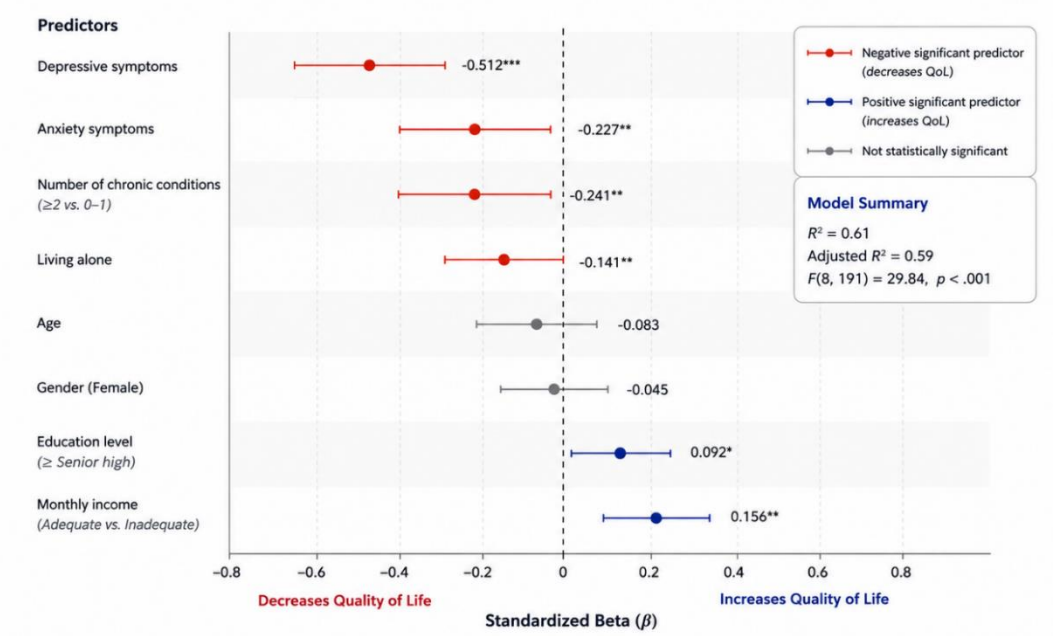

Figure 2. Predictors of Quality of Life Among Community-Dwelling Elderly: Multiple Linear Regression Results

Source: Primary survey data processed by the researchers, 2026

Figure 3 visually demonstrates the relative contribution of each predictor variable to quality of life among elderly participants. Depressive symptoms emerged as the strongest negative predictor, followed by chronic conditions and anxiety symptoms. In contrast, higher educational level and adequate monthly income showed positive associations with quality of life. Variables such as age and gender demonstrated relatively weak and statistically non-significant effects.

Reliability Analysis of Research Instruments

Reliability testing was conducted using Cronbach's alpha coefficients to evaluate the internal consistency of all measurement instruments employed in the study. The reliability analysis demonstrated acceptable to high levels of internal consistency across all domains.

Table 8. Reliability Analysis of Research Instruments

Instrument/Variable	Number of Items	Cronbach's Alpha
Physical health assessment	12	.81
Depression scale	9	.87
Anxiety scale	7	.84
Quality of life instrument	24	.89

Source: Primary survey data processed by the researchers, 2026

As shown in Table 8, all Cronbach's alpha coefficients exceeded the commonly accepted threshold of .70, indicating satisfactory reliability of the instruments used in this study. The quality of life instrument demonstrated the highest reliability coefficient (α = .89), followed by the depression scale (α = .87). These findings confirm that the research instruments possessed adequate internal consistency for measuring elderly physical health, psychological health, and quality of life within community-based settings.

Integrated Physical and Psychological Determinants of Quality of Life Among Community-Dwelling Elderly

This study examined the combined influence of physical and psychological health conditions on the quality of life of community-dwelling elderly individuals. The findings demonstrate that ageing within community settings is characterized not only by a substantial burden of chronic physical illness but also by considerable psychological vulnerability that significantly shapes overall well-being. More importantly, the study reveals that physical and psychological health do not operate independently; instead, they interact dynamically in determining quality of life among older adults. This integrative perspective constitutes one of the principal contributions of the study because much previous ageing research has tended to examine physical illness and mental health separately rather than as interconnected dimensions of elderly well-being.

The high prevalence of chronic physical conditions identified in this study is consistent with previous epidemiological evidence concerning ageing populations worldwide. Hypertension, musculoskeletal disorders, diabetes mellitus, and cardiovascular disease emerged as the most common health problems among participants, reinforcing findings reported by Skou et al. (2022) and Chowdhury et al. (2023), who emphasized that multimorbidity has become increasingly common among older adults. The substantial proportion of participants experiencing two or more chronic conditions also supports earlier arguments that chronic disease burden represents one of the major challenges confronting ageing societies. However, the present study extends previous findings by demonstrating that the consequences of multimorbidity are not limited to physical functioning alone but also influence emotional well-being and subjective perceptions of life quality.

The relationship between chronic illness and reduced quality of life observed in this study aligns closely with prior gerontological research emphasizing the negative effects of physical limitations on daily functioning and independence. Similar findings were reported by Huang et al. (2023), who argued that chronic disease significantly restricts mobility, social participation, and life satisfaction among elderly populations. Nevertheless, the current findings suggest that subjective perceptions of physical health may be equally important as objective disease diagnoses. Elderly participants experiencing chronic illness but maintaining positive perceptions of their health tended to report relatively better quality of life outcomes. This observation supports the conclusions of Dore & Idler (2024), who highlighted self-rated health as a strong predictor of well-being and mortality in older adults. Therefore, the present study contributes theoretically to biopsychosocial perspectives on ageing by emphasizing that elderly health should not be understood solely through biomedical indicators.

Psychological health emerged as one of the strongest predictors of quality of life in this study. Depressive symptoms demonstrated the most substantial negative association with quality of life, followed by anxiety symptoms. These findings are highly consistent with previous international studies identifying depression as one of the most influential determinants of elderly well-being (Tariq et al., 2023; Hossen & Salleh, 2025). Similar to previous evidence, the current study found that even moderate levels of psychological distress were associated with meaningful declines in physical, social, and emotional functioning. However, the novelty of this research lies in its demonstration that psychological health remained a statistically significant predictor even after controlling for chronic physical conditions and demographic variables. This indicates that psychological well-being exerts an independent influence on quality of life rather than functioning merely as a secondary consequence of physical illness.

The interaction analysis further revealed that elderly individuals with chronic physical illnesses but relatively stable psychological health reported better quality of life than participants with similar physical conditions accompanied by severe

depressive symptoms. This finding is particularly important because it highlights the buffering role of psychological resilience in the ageing process. Previous studies have suggested that coping capacity, emotional regulation, and social connectedness may reduce the adverse effects of chronic illness on daily functioning (Conduah et al., 2025; Jiakponna et al., 2024). The present study strengthens this argument by providing empirical evidence demonstrating that psychological well-being can partially moderate the negative consequences of physical decline among community-dwelling older adults.

The results are highly in support of the World Health Organisation's healthy ageing framework that views healthy ageing as the ability to age without the presence of disease and illness. From this point of view, quality of life results from the interactions between the intrinsic capacity and environmental support and psychosocial adaptation. The present study is a contribution to this framework that empirically demonstrates a tendency toward maintaining quality of life despite a high chronic disease burden, even in elderly people. The study thus contributes to the theoretical knowledge by underscoring the multi-faceted and interdependent nature of well-being among the elderly.

The results also highlight the ongoing relevance of social and environmental assistance structures of community-based elderly people. The family members' psychological well-being and social quality of life scores were generally higher than the scores of elderly persons who lived alone. The findings are consistent with prior research highlighting the importance of family support and social connectedness to older age (Holt-Lunstad et al., 2024; Wickramaratne et al., 2022). For older people in the community, the family is still a key aspect of emotional support, managing health and accessing social participation. However, regression analyses showed that having no one else living with them was a significant risk factor for poor QOL, highlighting social isolation as a significant public health issue for the elderly.

The study from a practical point of view, underscores the need for community based and integrated elderly healthcare strategies. In many settings, health care systems tend to focus on treating physical diseases and have relatively little attention to psychological health and emotional well-being. The current results indicate that interventions aimed solely at chronic disease management may have partial positive outcomes for quality of life if psychological distress is not addressed. Thus, in addition to chronic disease management initiatives, elderly healthcare programmes should also include routine health checks for mental health, social participation programmes, psychosocial support services and family interventions. This has also been suggested in previous studies that have explored integrated interventions for elderly care and for healthy ageing (A Kjelsnes & Feiring, 2022; Tsai et al., 2024).

The study is also methodologically innovative, in that it combines diverse aspects of the health of elderly into a single analytical frame. Whereas much of the previous literature has concentrated on individual clinical disorders, this study looked at the burden of chronic illness, psychological well-being, and multidimensional quality of life in a community context. Finally, the incorporation of interaction analysis and regression modelling further enhances the originality of the study by providing a model of interaction between physical and psychological factors that contributes to elderly well-being.

These contributions notwithstanding, a few limitations should be noted. Firstly, the cross-sectional design limits causal interpretation as it is difficult to fully establish the direction of time between health and quality of life. Poor quality of life can also lead to emotional ailments, while emotional ailments in turn can worsen quality of life. It is thus important to use longitudinal studies to better understand causal sequences and time order between these variables. Second, this study used mostly

self-reported data that could lead to reporting bias or inaccuracies. Self reported assessments are commonly used in gerontological research and future research might benefit from using clinical assessments and mixed methods to increase validity.

Another limitation concerns the generalizability of the findings. The study focused exclusively on community-dwelling elderly individuals and did not include institutionalized elderly populations whose health experiences may differ substantially. Furthermore, socio-cultural factors specific to the study setting may influence perceptions of ageing, family support, and psychological well-being. Future research should therefore explore comparative analyses across different cultural and healthcare contexts to better understand variations in elderly quality of life determinants.

Future studies should also examine additional psychosocial variables that may influence elderly well-being, including spirituality, resilience, coping strategies, social participation, and digital health access. Moreover, intervention-based studies evaluating integrated physical and psychological health programs could provide stronger evidence regarding effective strategies for improving elderly quality of life within community environments. Overall, the present study reinforces the importance of understanding elderly well-being through an integrated biopsychosocial framework and provides empirical support for more holistic approaches to healthy ageing policy and practice.

CONCLUSION

The results of this study show the interplay between physical and psychological health conditions is dynamic and impacts on the quality of life for elderly people living in the community. Chronic conditions like hypertension, musculoskeletal disorders, and diabetes were detrimental to the well-being of the elderly, and depression and anxiety were especially important factors and significant predictors of poor quality of life. Importantly, the results suggest that psychological resilience can partly ameliorate the effects of chronic physical illness, thus demonstrating the multidimensionality of healthy ageing. Theoretically, the study adds to the literature on biopsychosocial perspectives on ageing, while practically it highlights the importance of adopting a holistic and community-based approach for healthcare interventions addressing both physical and psychological dimensions of ageing. However, the study's design has cross-sectional limitations and self-report data may have introduced reporting bias. Future studies need a longitudinal design and a mixed method to examine causal relationship and other psychosocial factors related to the quality of life among the older people in different socio-cultural environment.

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