

## Relationship between Depression Level and Quality of Life in Elderly with Hypertension

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### ABSTRACT

**Introduction:** Long-term depression and prolonged will impact on disturbance health And will lower quality life age carry on in aspect physical , psychological , social , and environment . Quality life age carry on Also can influenced consequence disease hypertension .

**Objective:** This study aim For know connection level depression with quality life on elderly with hypertension at the Community Health Center Twin I.

**Methods:** This research use method descriptive correlational with cross-sectional approach . Technique taking sample In this study, a total sampling of 64 elderly people was used . This research instrument use GDS (Geriatric Depression Scale) questionnaire and WHOQOL-BREF questionnaire . Analysis of this research data use Spearman rank analysis .

**Results:** obtained part big respondents various sex Woman as many as 57 respondents (89.1%), 29 respondents (45.3%) were elderly , educated No graduated from elementary school/ not school as many as 38 respondents (59.4%), work as Mother House ladder as many as 42 respondents (65.9%), and status Marry as many as 50 respondents (78.1%). Most of them respondents No experience depression as many as 28 respondents (43.8 % ), and own quality life currently that is as many as 48 respondents (75.0%). Results Spearman's rank statistical test shows  $p$  value = 0.238  $> \alpha = 0.05$  And correlation of -0.150 so that can concluded No There is connection level depression with quality living in the Community Health Center Twin I.

**Conclusion:** There was no relationship between depression levels and quality of life in elderly people with hypertension

**Keywords :** carry on age , hypertension , level depression , quality life .

## INTRODUCTION

Aging is a process experienced by humans during their lives entering the age of 60. Elderly people experience various changes both physically, mentally and socially (1) . In 2021, the number of elderly people worldwide is estimated to be more than 703 million elderly people aged over 65 years. Meanwhile, it is estimated that the number of elderly people in 2050 will reach 1.5 billion, as many as 53% of these elderly people are in Asia. According to *the World Health Organization* (WHO), the number of elderly people aged 60 years and over in Indonesia in 2022 was 29.3 million or 10.8% (2)

Humans who have undergone growth and development will then experience the aging process. Aging is a natural process that cannot be avoided or stopped. Physical abilities in the elderly will decline over time, causing decreased performance in carrying out activities, thus increasing their dependency. Physical, psychological, and social changes in the elderly are some of the causes of dependency that will be experienced due to the aging process (3). Physical changes in the elderly make the immune system susceptible to disease. One of these is changes in the cardiovascular system, and the impact of these changes is hypertension (2).

*the World Health Organization (WHO)*, hypertension is a condition in which systolic blood pressure is equal to or above 140 mmHg and/or diastolic blood pressure is equal to or above 90 mmHg (4). This occurs because peripheral vascular resistance increases and blood vessel capacity decreases, causing an increase in blood pressure. Hypertension is a degenerative disease in the elderly and often appears without symptoms. Therefore, it is important to raise awareness about the need for proactive treatment of hypertension, especially among the elderly who are vulnerable to various degenerative diseases (5) . Furthermore studies also stated that degenerative diseases can arise without symptoms such as high blood pressure, blood sugar, and uric acid (6).

According to the World Health Organization (WHO), in 2019, the number of people with hypertension in the world was estimated to reach 1 billion, and two-thirds of them were in developing countries. This figure is increasingly worrying, with 972 million (26%) adults worldwide suffering from hypertension. This figure continues to increase drastically, and it is predicted that by 2025, around 29% of adults worldwide will suffer from hypertension. Of the 972 million people with hypertension, 333 million are in developed countries and the remaining 639 are in developing countries, including Indonesia. The number of people with hypertension in Indonesia is 70 million people (28%). Individuals with a family history of hypertension have a risk twice as high of developing hypertension as those without a family history of hypertension (7).

Various changes in the social environment can also be felt by the elderly, such as economic decline, loss of family members or close friends, loss of employment, and the inability to participate in community activities. This causes the elderly to be susceptible to mental disorders, especially depression (8) .

Depression is an emotional condition that is usually characterized by feelings of worthlessness, guilt (breakup of relationships, loss of appetite, loss of interest in daily activities, insomnia) and deep sadness (8). Various changes in the social environment can also be felt by the elderly, such as economic decline, loss of family members or close friends, loss of employment, and the inability to participate in community activities. The impact of depression on the elderly can also affect the quality of life and compliance with blood pressure control, this is because the elderly experience a decline in

psychological, biological, physical and social functions. Long-term and prolonged depression will also have an impact on the decline in the immune system and accelerate the progression of health problems in the elderly. If this condition is not immediately addressed, it will reduce the quality of life of the elderly (9).

Quality of life is a patient's emotional reaction to family relationships, work, emotional, and social activities. Happiness is defined as a match between reality and expectations, a sense of satisfaction in carrying out emotional, social, and physical functions, and the ability to socialize with others. Both environmental and individual factors influence the quality of life of elderly people with hypertension. These individual factors include age, educational background, gender, occupation, marital status, consistency of treatment, and duration of hypertension, all of which can impact the quality of life of elderly people with hypertension (8).

The results of the study showed that of the 65 elderly respondents with moderate levels of depression, 57 (22.5%) had a poor quality of life and 8 (3.2%) had a good quality of life (2). Of the 104 elderly respondents with mild levels of depression, 52 (20.6%) had a poor quality of life and 52 (20.6%) had a good quality of life. Of the 84 elderly respondents with normal levels of depression, 15 (5.9%) had a poor quality of life and 69 (27.3%) had a good quality of life. It can be concluded that there is a significant relationship between the level of depression and quality of life in the elderly. Whereas in previous research obtained poor quality of life tends to occur as the degree of depression increases, moderate to severe depression is more likely to experience poor quality of life (71.4%), mild depression increases the chance of experiencing poor quality of life 1.481 times compared to not being depressed, but not statistically significant ( $p = 0.579$ ). Likewise, moderate to severe depression increases the chance of experiencing poor quality of life 2.778 times compared to not being depressed, but not statistically significant ( $p = 0.284$ ). After conducting a bivariate test, it can be concluded that the level of depression and quality of life in the elderly at the Wana Seraya Werdha Social Home are not statistically significantly related, but seen from the high OR value, the level of depression is a risk factor for poor quality of life (10).

A preliminary study was conducted on March 20, 2024, using direct observation through interviews. There were 80-100 cases of hypertension, and data obtained showed that five elderly individuals reported fatigue due to aging, which causes their bodies to decline in activity. They also expressed anxiety due to the fear of death and the potential complications of illness. Their daily activities were disrupted by insomnia, resulting in fatigue, and memory loss. They also reported a lack of self-confidence due to their reduced physical ability to perform activities, leading them to think they were bothering those around them.

Based on the background above, the researcher is interested in knowing the level of depression and quality of life of the elderly and then analyzing the relationship between the level of depression and quality of life in the elderly with hypertension at the Kembaran I Community Health Center.

## MATERIALS AND METHODS

This research is a quantitative research with a descriptive correlational design, with a *Cross-sectional approach*. This research was conducted on May 16, 2024, at the Kembaran I Community Health Center. The population in this study were all elderly who participated in Prolanis at the Kembaran I Community

Health Center with a total of 64 elderly obtained through *total sampling*. The independent variable in this study was the level of depression, while the dependent variable in this study was the quality of life. The instrument used was a questionnaire for the level of depression measured using the *Geriatric Depression Scale* (GDS), and a questionnaire for the quality of life measured using the *WHOQOL-BREF* which has been tested for validity and reliability. The primary data of this study were about the level of depression and quality of life of elderly with hypertension. The secondary data of this study were data from elderly with hypertension at the Kembaran I Community Health Center. The statistical analysis test in this study used the *Spearman Rank Test* to determine the relationship between the level of depression and quality of life in the elderly. This study has received *ethical approval* from the Health Research Ethics Commission of Harapan Bangsa University with Decree No. B.LPPM-UHB/417/05/2024.

## RESULTS

**Table 1. Frequency Distribution of Respondent Characteristics Based on Gender, Age, Education Level, Employment Status, and Marital Status**

Respondent Characteristics	Frequency ( <i>f</i> )	Percentage (%)
<b>Gender</b>		
Man	7	10.9
Woman	57	89.1
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Age</b>		
Middle age (45-60)	27	42.2
Elderly (60-75)	29	45.3
Old (75-90)	7	10.9
Very old (>90)	1	1.6
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Level of education</b>		
Did not finish elementary school/did not go to school	38	59.4
Graduated from elementary school	13	20.3
Graduated from junior high school	2	3.1
Graduated from high school	9	14.1

Bachelor's/diploma graduate	2	3.1
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Employment Status</b>		
Housewife	42	65.9
Trader	9	14.1
Private employees	3	4.7
Retired	1	1.6
Farmer	5	7.8
Laborer	4	6.3
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Marital status</b>		
Not married yet	0	0
Marry	50	78.1
Widow/widower	14	21.9
<b>Total</b>	<b>64</b>	<b>100.0</b>

Table 1 shows that out of 64 respondents, 57 respondents (89.1%) were female and 7 respondents (10.9%) were male. 29 respondents (45.3%) were elderly (60-70%), while a small number were very old (90%) with 1 respondent (1.6%). 38 respondents (59.4%) had not completed elementary school/did not go to school, while the fewest respondents had a bachelor's/diploma education level with 2 respondents (3.1%). 42 respondents (65.9%) were mostly housewives, while a small number were retired with 1 respondent (1.6%). 50 respondents (78.1%) were married, while the fewest were unmarried with 0 respondents (0%).

**Table 2 Frequency Distribution of Respondents Based on Quality of Life**

Quality Life	Frequency (f)	Percentage (%)
Quality Life Currently	48	75.0
Quality Life Tall	16	25.0
<b>Total</b>	<b>64</b>	<b>100.0</b>

Table 2 shows that the majority of elderly people experience a moderate quality of life, as many as 48 elderly people (75.0%), while a small proportion experience a high quality of life, as many as 16 elderly people (25.0%).

**Table 3 Frequency Distribution of Respondents Based on Depression Level**

<b>Depression Level</b>	<b>Frequency</b> ( <i>f</i> )	<b>Percentage</b> (%)
No Depression	28	43.8
Depression Light	24	37.5
Depression Currently	11	17.2
Depression Heavy	1	1.6
<b>Total</b>	<b>64</b>	<b>100.0</b>

Table 3 shows that the majority of elderly people do not experience depression, as many as 28 elderly people (43.8%), while a small proportion experience severe depression, as many as 1 elderly person (1.6%).

**Table 4 Results of the Analysis of the Relationship between Depression Levels and Quality of Life**

Depression level * Quality of life			p-value	CC		
	Quality Life					
	Currently	Tall				
Depression level	No Depression	19	9	28		
	Light	19	5	24		
	Currently	9	2	11		
	Heavy	1	0	1		
	<b>Total</b>	<b>48</b>	<b>16</b>	<b>64</b>		

Table 4 shows that the results of the statistical test using *the Spearman rank test* show a *p value* = 0.238 >  $\alpha$  = 0.05 so that  $H_0$  is accepted and  $H_1$  is rejected, which means there is no relationship between the level of depression and quality of life in the elderly with hypertension at the Kembaran I Community Health Center. *The Spearman rank correlation coefficient value* of -0.150 indicates that the strength of the relationship between these two variables is in the very weak category.

## DISCUSSION

### Depression Level

The results of the study showed that most elderly people did not experience depression, as many as 28 elderly people (43.8%), while a small number experienced severe depression, as many as 1 elderly person (1.6%). Researchers assume that most elderly people who experience hypertension have normal levels of depression because the elderly have a good mood indicated by the level of satisfaction, gratitude, and happiness in living their lives, and most of them still have partners and live with their families. This is in line with other studies which state that elderly people who have high enthusiasm in living life, feel valuable, do not have feelings of guilt or fear of bad things, and have good memories.

In addition, elderly people who are not depressed also mostly have life partners, live with their families, and are active in social interactions. (15)

### **Quality Life**

The results of the study showed that the majority of elderly people experienced a moderate quality of life, as many as 48 elderly people (75.0%), while a small proportion experienced a high quality of life, as many as 16 elderly people (25.0%).

quality of life for the elderly is defined as the functional condition of the elderly at their maximum, enabling them to enjoy their old age meaningfully, happily, and usefully. There are four dimensions that can be used to measure quality of life: relationships with the environment, social relationships, psychological well-being, and physical health (11).

In this study, the researchers concluded that the majority of elderly people with hypertension have a moderate quality of life because they have good psychological well-being. This is reflected in the questionnaire responses, which showed that most elderly people feel satisfied with themselves and do not experience negative feelings such as loneliness, hopelessness, and anxiety. This is in line with the results of other studies. Previously, it was stated that well-being is one of the parameters for the high quality of life of the elderly. This well-being can be achieved if the four factors that influence quality of life, such as physical, psychological, social and environmental factors, can achieve a state of well-being . ( 12 )

### **Relationship between Depression Levels with Quality of Life in Elderly with Hypertension at Kembaran I Community Health Center**

The results of the study showed that there were 19 elderly people (29.7%) who did not experience depression with moderate quality of life, 9 elderly people (14.1%) who did not experience depression with high quality of life, 19 elderly people (29.7%) who experienced mild depression with moderate quality of life, 5 elderly people (7.8%) who experienced mild depression with moderate quality of life, 9 elderly people (14.1%), 2 elderly people (3.1%) who experienced moderate depression with high quality of life, and 1 elderly people (1.6%) who experienced severe depression with moderate quality of life. These results indicate that there is no relationship between the level of depression and the quality of life in elderly people with hypertension at the Kembaran I Community Health Center, namely the higher the level of depression, the lower the quality of life. This is in accordance with the results of statistical tests using the *Spearman rank test* showing a  $p$  value = 0.238 >  $\alpha$  = 0.05 with a correlation coefficient value of  $r$  = -0.150, which means that the strength of the relationship between the level of depression and quality of life in the elderly with hypertension at the Kembaran I Community Health Center is very weak.

This study is in line with research conducted by that there is no statistically significant relationship between the level of depression and quality of life in the elderly at the Wana Seraya Werdha Social Home (10). Meanwhile, this study is not in line with, which states that there is a relationship between the level of depression and quality of life in hypertension patients. The emotional aspect is a factor that can influence the decline in quality of life and result in a decline in physical health and increase anxiety and depression. In addition, in the psychological aspect, patients feel worthless because they have a history of non-communicable diseases and feel more troublesome to others in daily activities, the loss of loved ones, physical changes occur to feel lonely and lead to depression. research (13)

Patients with chronic illnesses often exhibit symptoms of depression such as hopelessness, pessimism, feelings of failure, dissatisfaction with life, negative comparisons with others, and low self-esteem. Individuals who are unable to cope with the stress that results from these symptoms will experience a negative impact on the quality of life of hypertension sufferers. (14)

In this study, which found no correlation between depression levels and quality of life in elderly people with hypertension at the Kembaran I Community Health Center, researchers assumed that depression in elderly people with hypertension could be caused by various factors unrelated to the hypertension itself. These factors include interpersonal issues, as indicated by questionnaire responses that showed that most elderly people received support from their family and friends. Furthermore, environmental factors also play a significant role, with the majority of elderly people living in good neighborhoods, having easy access to healthcare facilities, and receiving adequate healthcare services. These factors can impact the elderly's ability to manage and overcome depression, which in turn can affect their quality of life. A good quality of life for an individual involves the absence of disturbances in psychological aspects, social relationships, and the environment.

## CONCLUSION

Based on research results, can concluded that The majority were female, elderly (60-75), had less than elementary school education, worked as housewives, and were married. Most had a moderate quality of life (48 elderly people (75.0%), and most did not experience depression (28 elderly people (43.8%). There was no relationship between depression levels and quality of life in elderly people with hypertension with a *p value* of 0.238 and a CC of -0.150.

## REFERENCES

1. Vinet, L., & Zhedanov, A. (2021). The Relationship Between Cognitive Function and Quality of Life in the Elderly. *Journal of Physics A: Mathematical and Theoretical* , 44 (8), 1689–1699. <https://doi.org/10.1088/1751-8113/44/8/085201>
2. Andriani, A., Kurniawati, D., Khoiry, A., & Lubis, S. (2023). The Relationship Between Depression Levels and Quality of Life in Elderly Patients with Hypertension in the Rasimah Ahmad Community Health Center Work Area, Bukittinggi, 2022. *Jurnal Ners* , 7 , 48–52. <http://journal.universitaspahlawan.ac.id/index.php/ners>
3. Noor, RA, Harliansyah, & Widayanti, E. (2023). The Relationship Between Quality of Life and Self-Esteem in the Elderly During the Covid-19 Pandemic. *Cerdika: Indonesian Scientific Journal* , 3 (1), 12–19. <https://doi.org/10.59141/cerdika.v3i1.515>
4. Borrego, A. (2021). *FACTORS ASSOCIATED WITH SELF CARE MANAGEMENT IN HYPERTENSION PATIENTS* . 10 , 6.
5. Maulidina, CM, Widianika, AR, Gunawan, W., Ikhsan, MN, Adani, AT, Syafa, B., Arum, AS, Rahmadani, S., Powiec, NF, & Adiyanto, O. (2024). Hypertension prevention education for healthy elderly. *Journal of Community Empowerment Learning (JP2M)* , 4 (4), 776–783. <https://doi.org/10.33474/jp2m.v4i4.21164>
6. Nurbidayah, N., Afra, FY, Saufi, M., & Bandawati, B. (2024). Efforts to Prevent Degenerative Diseases Through Health Education for the Elderly in Penggalaman Village, West Martapura District. *I-Com: Indonesian Community Journal* , 4 (1), 101–107. <https://doi.org/10.33379/icom.v4i1.3906>
7. Fadhli, A. (2020). The Relationship Between Depression Levels in Elderly Patients and Primary

Hypertension at Dr. Esnawan Antariksa Halim Perdanakusuma Hospital.... *National Seminar on Medical Research* , 107–111. <https://conference.upnvj.ac.id/index.php/sensorik/article/view/442>

8. Prianahatin, AL, & Retnaningsih, D. (2023). Relationship of Depression Level to Quality of Life of Elderly Hypertension Patients in RW 03, Limbangan Village, Libangan District, Kendal Regency. *Journal of Health Science and Technology* , 14 (1), 18–24. <https://doi.org/10.33666/jitk.v14i1.489>

9. Murharyati, A., Wulandari, Y., & Safitri, W. (2020). Efforts to Empower Elderly Posyandu Cadres Regarding Elderly Depression Detection. *Jurnal Salam Sehat Masyarakat (JSSM)* , 2 (1), 67–74. <https://doi.org/10.22437/jssm.v2i1.11164>

10. Mahadewi, & Ardani. (2018). The Relationship between Depression Levels and Quality of Life in the Elderly at the Wana Seraya Social Home for the Elderly, Denpasar, Bali. *E-Jurnal Medika* , 7 (8), 1–8. <https://ojs.unud.ac.id/index.php/eum/article/view/41632>

11. Astuti, L., & Wati, LR (2023). The Relationship between Stress Levels and Quality of Life in Hypertension Patients During the COVID-19 Period at the Merdeka Community Health Center, Palembang. *Malahayati Nursing Journal* , 5 (2), 435–445. <https://doi.org/10.33024/mnj.v5i2.7958>

12. Rohmah, AIN, Purwaningsih, & Bariyah, K. (2019). Quality of life in the elderly. *Journal of Nursing* , 3 (2), 120–132.

13. Solikhah, S., & Rahmawati, D. (2023). The relationship between depression levels and quality of life measured using HRQOL in hypertensive patients at the Mantrijeron Community Health Center, Yogyakarta. *Jurnal Cakrawala Promkes* , 5 (1), 26–35. <http://www.journal2.uad.ac.id/index.php/cp/article/view/6670%0Ahttp://www.journal2.uad.ac.id/index.php/cp/article/download/6670/3296>

14. Hasana, U., & Harfe'i, IR (2019). The Relationship Between Stress and Quality of Life in Hypertension Patients. *Jurnal Kesehatan* , 138. <https://doi.org/10.35730/jk.v0i0.437>

15. Maghfirah, A., Ermamilia, A., & Kamala, RF (2018). The relationship between depression levels and food intake with hypertension in the elderly in Bantul Regency. *Alma Ata Repository* , 1–11.