



THE RELATIONSHIP BETWEEN ANXIETY WITH QUALITY OF LIFE ELDERLY SUFFERING FROM HYPERTENSION AT PUSKESMAS BABADAN PONOROGO

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Research Report

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ABSTRACT

Introduction: quality of life is a person's perception of the physical, psychological, social, and environmental conditions in life. Quality of life is impacted by excessive anxiety about health conditions one of them hypertension. The creasing of age and hypertension experienced elderly trigger other diseases. This study aims to determine the relationship between anxiety and quality of life in elderly people with hypertension.

Methods: The research design uses quantitative with a cross-sectional study. The inclusion criteria were elderly people with high blood pressure $\geq 140/90$ mmHg. Sampling was carried out using a purposive sampling technique, totaling 160 samples. The instruments used were the GAI and OPQOL-BRIEF questionnaires. Statistical test with Spearman Rank (Rho). **Results:** For more than half of the total sample, elderly anxiety was in the moderate category (63.1%) and most of the elderly's quality of life was in the poor category (80.8%). The statistical test results showed a significance of 0,000 because $p < 0.05$, it was concluded that there was a significant relationship between anxiety and quality of life in elderly people with hypertension at Puskesmas Babadan Ponorogo. The closeness is relationship 0.699 considered strong.

Conclusions: There is a relationship between anxiety and quality of life in elderly people with hypertension at Puskesmas Babadan Ponorogo. It is hoped that respondents can improve their healthy lifestyle, have regular health check-ups, and not feel excessively anxious about their health

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INTRODUCTION

Quality of life is used to evaluate overall psychological and social functioning to determine the effects of disease (Liu *et al.*, 2023). Quality of life is becoming more of a concern in the medical field and focus the of research because of applications in various fields. The quality of life elderly is influenced by several factors including age, gender, highest level of education, marital status, and employment status (Mahajan *et al.*, 2020). The quality of life elderly can decrease due to the health problems they experience, one of which is hypertension. Quality of life can affect the lives of the elderly because the elderly experience decreased immune systems or are easily attacked by various diseases that can cause death (Iswatun and Susanto, 2021).

Hypertension causes 60,000 deaths in America every year (Wade, 2023). In Indonesia, based on doctors' diagnoses in residents aged ≥ 18 years by province, the prevalence number

diagnosed with hypertension in Indonesia reached 658,201. The first position for the highest prevalence of hypertension cases falls to the West Java region with a value of 121,153, while East Java occupies the second highest position with a weighted number of 105,380 with an average value of 36.32 (Kemenkes RI, 2018). The projected male and female population in East Java in 2018 is 39,500,851 people, and in Ponorogo in 2018 it is 870,705 people with a sex ratio of 99.92 (Kemenkes RI, 2018).

Hypertension is a cardiovascular disease that can attack anyone. Someone who has a long history of hypertension and undergoing treatment is likely to experience a decrease in quality of life and anxiety. Several factors are associated with reduced quality of life such as age, location of residence, comorbidities, medications used, body mass index, and participation in social activities (Ngoc *et al.*, 2023). Hypertension in the quality of life causes an impact or obstacle to physical,



psychological, social, and environmental health functions. Quality of life (QoL) impacted in hypertensive patients is often associated with emotional disorders and coping abilities (Wang et al., 2023). The anxiety is related doubt to thoughts or feelings of uncertainty and helplessness, as well as an emotional state that does not have a clear goal (Iswatun *et al.*, 2023). This anxiety is a manifestation of various emotions that have occurred because the individual's feelings and inner thoughts are depressed.

The results of a preliminary study on elderly respondents with hypertension were conducted randomly in Puskesmas Babadan Probolinggo with short interviews three people had a moderate quality of life and seven people had a bad quality of life. Elderly patients with hypertension feel that their lives are meaningless due to weakness and the disease process that a long life disease. This can affect the quality of life elderly by changing their personal appearance, not being able to remember, and being afraid of losing people around them, as well as feeling stressed (Sari and Susanti, 2017).

Emotional status will increase with increasing age. Negative emotional reactions such as anxiety can lead to poor lifestyle behavior due to lack of physical exercise and poor medication compliance which can worsen quality of life (Gu *et al.*, 2019). Hypertension is a chronic disease that cannot be completely cured, so indicators are needed to measure quality of life (QOL) to determine the effectiveness of treatment and management of hypertension (Ngoc *et al.*, 2023). The treatment can be given to individuals suffering from hypertension to determine the quality of life and level of anxiety in the elderly to carry out therapeutic communication. The aim of this study was to determine the quality of life and anxiety levels, as well as the relationship between the two in elderly people with hypertension.

MATERIALS AND METHODS

This research uses a quantitative design, that examines the relationship between the independent variable and dependent variable with a cross-sectional study. The target population in this study was all elderly people with hypertension total of 264 people who lived at Puskesmas Babadan Ponorogo. Sampling in this study used purposive sampling.

The inclusion criteria set by the researchers were pre-elderly aged between 45-59 years and elderly aged ≥60 years, blood pressure ≥140/90 mmHg, and willing to become research respondents by signing an informed consent form. The exclusion criteria in this study include elderly people with severe physical conditions that make it impossible to take questionnaires and elderly people who have disabilities, such as elderly who have blindness and deafness.

The Determining of samples uses a sample size formula namely the Slovin technique with sampling method uses purposive sampling. The sample in this study consisted of 160 elderly people. The instruments used in this research were questionnaires to measure anxiety using the Geriatric Anxiety Inventory (GAI) and to measure quality of life with Older People's Quality of Life (OPQOL-BREF).

This research was carried out from February to April 2022. The data analysis process in this research went through several stages of editing, scoring, coding, tabulating, and data entry. Statistical test analysis in this study used the Spearman rank test with a significance level of 0.05 if $p < 0.05$. If the result is $p < 0.05$, it is a significant relationship between the anxiety variable and quality of life, so H_0 is accepted. The statistical test stage of this research used the Statistical Product and Service Solutions (SPSS) 25.0 for Windows computer software program.

RESULTS

Characteristic of respondents

Table 1. Characteristics of respondents based on gender, age, education, marriage status, and job status at Puskesmas Babadan Ponorogo (n=

	Category	Frequency (f)	Percentage (%)
Gender	Male	32	20%
	Female	128	80%
Age	45-59	51	31,9%
	60-74	92	57,5%
	75-90	17	10,6%
Education	No studied	15	9,4%
	Elementary school	34	21,3%
	Junior high school	35	21,9%
	Senior high school	62	38,8%
	College	14	8,8%

	Category	Frequency (f)	Percentage (%)
Marriage status	Marriage	114	71%
	Single	1	3%
	Widows	37	21%
Job-status	unemployment	83	51,9%
	Self-employed	48	30%
	Farmer	29	18,1%

Based on table 1, shows that the majority (80%) of respondents were female with a total of 128 people. Based on table 1, shows that more than half (57.5%) of the total respondents were aged between 60-74 years and 92 people were in the elderly category, and a small portion (10.6%) were aged 75-90 years for 17 people. Based on table 1, shows that senior high school of a small number of respondents (38.8%) as many 62 respondents, and college as many 14 respondents (8.8%). Based on table 1, it shows that of the 160 respondents more than half (71%) were married for 114 respondents and single (3%) for 1 respondent. Based on table 1, it shows that more than half (51.9%) of the total respondents were unemployed for 83 respondents and worked as farmers (18.1%) for 29 respondents

Custom data

1. The anxiety levels at Puskesmas Babadan Ponorogo

Table 2. Characteristics of respondents based on anxiety at Puskesmas Babadan Ponorogo

Category	Frequency (f)	Percentage (%)
Mild	18	11.3%
Moderate	101	63.1%
Severe	41	25.6%
Total	160	100%

Based on table 2, shows that the level of anxiety experienced by elderly people is more than half (63.1%) in the moderate anxiety for 101 respondents. Meanwhile, very few (11,3%) respondents' anxiety was in the panic category for 18 respondents.

2. Quality of life at Puskesmas Babadan Ponorogo

Table 3. Characteristics of respondents based on the quality of life at Puskesmas Babadan Ponorogo

	Frequency (f)	Percentage (%)
Mild	129	80.8%
Moderate	30	19%
Severe	1	0.2%
Total	160	100%

Based on table 3, shows that explained that the quality of life of elderly people with blood pressure $\geq 140/90$ mmHg is mostly in the mild category (80.8%) as many as 129 people and very few (0.2%) for 1 respondent have a good quality of life.

3. The Relationship between Anxiety and Quality of Life in Elderly Suffering from Hypertension at Puskesmas Babadan Ponorogo

Table 4. Between the relationship between anxiety with quality of life in the elderly suffering from hypertension at Puskesmas Babadan Ponorogo

		Quality of life						Total	
		Bad		Currently		Good		n	%
		n	%	n	%	n	%		
Anxiety	Mild	10	6.1%	7	4.8%	1	0.6%	18	11.5%
	Moderate	79	49.6%	22	13%	0	0	101	62.6%
	Severe	40	25.3%	1	0.6%	0	0	41	25.9%
Total		129	81%	30	18.4%	1	0.6%	160	100%

$r_s = 0.667$

$P\ sign = 0,000$

Based on table 4, it showed that almost half (49.6%) of the total respondents were in the moderate anxiety category with poor quality of life for 79 respondents and very few (0.6%) respondents were in the mild anxiety category with good quality of life for 1 person. The results of the Spearman Rank (Rho) statistical test show a correlation coefficient (r_s) of 0.66g, which means that is level of strength of the

relationship between anxiety with quality of life in the elderly with hypertension is the strong category. The significance value of the relationship or p sign 0.000 is a significant (meaningful) relationship between anxiety and quality of life.

DISCUSSION

The anxiety levels at Puskesmas Babadan Ponorogo

Based on the research results, it shows that the level of anxiety experienced in the elderly with blood pressure $\geq 140/90$ mmHg is more than half (63.1%) of the total respondents in the moderate anxiety category. The researchers are more anxious about elderly with hypertension risk factors their age. The female respondents experienced severe anxiety greater than male respondents because women are considered to be more sensitive and use their feelings while men are considered to have more mental strength in dealing with dangerous responses (Iswatun, Ah. Yusuf, *et al.*, 2022). As a person gets older, anxiety can increase. The Elderly become anxious when they reach the age of 60 and experience so physical problems (Ngadiran, 2019).

Feelings of excessive anxiety are a manifestation of various emotions that occur because individuals feel their feelings or thoughts are depressed and occur due to the health conditions experience. Research in South Korea concluded that family support is needed to reduce levels of anxiety and depression in the elderly (Park *et al.*, 2018). In old age, many body organs decline, so most elderly easily experience hypertension. Hypertensive patients require a relatively long treatment time because risk of complications and feelings of anxiety as the patient's age gradually decreases. Improving family function and reducing anxiety in elderly with hypertension is carried out to improve quality of life (Zhang *et al.*, 2021).

The research results related to anxiety described above are in line with other research stating that anxiety levels in the majority of elderly women have moderate anxiety levels (Wahyuningsih and Priyono, 2020). The results of previous research show that the majority of respondents fall into the category of moderate anxiety level and the results of statistical test analysis show that there is a relationship between anxiety level and hypertension. This research also revealed that moderate levels of anxiety were experienced by elderly women who had blood pressure values higher than normal, jobs as farmers and laborers, and low levels of education (Katsi *et al.*, 2017). Elderly people with moderate anxiety only focus on the things they have to do, including narrowing their senses so that what they see, hear, and feel becomes narrower. Individuals will focus

on the worries they experience when starting to make plans, but can still do something else if they want to do something else (Kati, Opod and Pali, 2018).

Quality of life of elderly with hypertension at Puskesmas Babadan Ponorogo

The research results show that according to Table 3 state that the majority (80.8%) of elderly people with hypertension have a poor quality of life. This can be proven by the high percentage of elderly research results with poor quality of life. This is in line with other research that hypertension significantly affects a person's sleep quality and quality of life with the worst outcomes in the physical domain followed by the psychological domain, social relationships, and the environment (Jain, Pathania, and Bahurupi, 2021).

Researchers assume that the quality of life in the elderly has a causal factor in the level of education. Based on the research results, it was found that the majority of elderly people's education was at the high school level. These results are in line with previous research, stating that low education has a lower or worse quality of life (Irawan and Mulyana, 2019). This is because the lower a person's level of education, the less life experience they have and the worse they are at dealing with problems that arise. In general, elderly people with a lower level of education are less productive in filling and contributing to their free time. Low education is associated with poor quality of life. Quality of life in the elderly describes the phase of life in the elderly. Poor quality of life will affect the level of welfare of the elderly. Previous research using the EQ-5D questionnaire also showed a relationship between hypertension and quality of life and had a bad effect on a person's quality of life (Gonibala, Kaunang, and Sekeon, 2017).

The Relationship between Anxiety and Quality of Life in Elderly Suffering from Hypertension at Puskesmas Babadan Ponorogo

The results of this study showed there is a significant relationship between anxiety and quality of life in the elderly with hypertension. The results of the study are in line with previous research concluded the relationship between anxiety with quality of life in the elderly, the higher the level of anxiety in the elderly lower their quality

of life, so it can be concluded that mental health is important for the quality of life of hypertension patients (Zhang *et al.*, 2021). This statement is supported by another statement that increasing levels of anxiety can affect the quality of life of respondents with hypertension will worsen due to factors such as age and low level of education (Avelina and Natalia, 2021). Along with mental disorders such as anxiety, and depression, other cognitive disorders have a major impact on the quality of life of the elderly.

This research reveals that depression is related to the quality of life in the elderly and providing appropriate psychological interventions can improve and maintain the quality of life in the elderly (Iswatun, Ah Yusuf, *et al.*, 2022). This statement shows that screening data shows that mental disorders have a very important impact on the well-being of the elderly. Although medical evaluation is the main thing, detecting and treating anxiety, depression, and cognitive problems in the elderly is much more important to improve quality of life. In addition, if an elderly person is immersed in anxiety due to chronic illnesses suffered by the elderly person, it can have a negative impact on interpersonal relationships and cause reality-oriented confusion, as well as reduce the productivity and quality of life of the elderly person (Wulandari, 2019). The longer a person has blood pressure above the normal limit, the greater the level of anxiety experienced due to the respondent's concern about the disease not being cured even though various treatment efforts have been made. Researchers have the assumption that the higher the anxiety, the quality of life will decrease, so the well-being of the elderly can worsen.

CONCLUSIONS

Anxiety among elderly people with hypertension at Puskesmas Babadan Ponorogo, more than half of the total respondents were in the moderate category because of poor quality of life in elderly people with hypertension. The research results showed that the majority of respondents fell into the category of moderate anxiety level. The results of statistical test analysis showed that there was a relationship between anxiety level with hypertension. This is influenced by education and age which influence anxiety resulting in poor quality of life.

REFERENCES

Avelina, Y. and Natalia, I.Y. (2021) 'Hubungan tingkat kecemasan dengan kualitas hidup pasien hipertensi yang sedang menjalani pengobatan hipertensi di desa lenandareta

wilayah kerja puskesmas paga', *Jurnal Keperawatan dan Kesehatan Masyarakat*, 7(1).

Gonibala, R.S., Kaunang, W.P.J. and Sekeon, S.A.S. (2017) 'Hubungan Antara Hipertensi Dengan Kualitas Hidup Pada Lansia Di Kelurahan Kolongan Kecamatan Tomohon Tengah Kota Tomohon Pada Tahun 2017', *KESMAS*, 6(3).

Gu, R. *et al.* (2019) 'The self-perceptions of aging were an important factor associated with the quality of life in Chinese elderly with hypertension', *Psychogeriatrics*, 19(4), pp. 391–398.

Irawan, E. and Mulyana, H. (2019) 'Faktor-faktor yang berhubungan dengan kualitas hidup pasien hipertensi literature review', *Jurnal Mitra Kencana Keperawatan dan Kebidanan*, 3(1), pp. 25–34.

Iswatun *et al.* (2023) 'Relationship between anxiety and spiritual well-being of the elderly with hypertension during the COVID-19 pandemic', *Journal of the Pakistan Medical Association*, 73(2), pp. 546–549. Available at: <https://doi.org/10.47391/JPMA.Ind-S2-11>.

Iswatun, I., Yusuf, Ah, *et al.* (2022) 'Depression, anxiety, coping strategies, quality of life of the elderly during the COVID-19 pandemic', *International Journal of Public Health Science*, 11(4), pp. 1501–1508. Available at: <https://doi.org/10.11591/ijphs.v11i4.21768>.

Iswatun, I., Yusuf, Ah., *et al.* (2022) 'Predictors of Anxiety And Effect on Spiritual Well-Being of Elderly', *NeuroQuantology*, 20(19), pp. 2806–2817. Available at: <https://doi.org/10.48047/nq.2022.20.19.NQ99238>.

Iswatun, I. and Susanto, J. (2021) 'Relationship Between Knowledge and Level of Dietary Compliance In Patients with Hypertension', *Jurnal Midpro*, 13(1), p. 92. Available at: <https://doi.org/10.30736/md.v13i1.293>.

Jain, N., Pathania, M. and Bahurupi, Y. (2021) 'Assessment of sleep quality and quality of life in hypertensive subjects at a tertiary care hospital in Uttarakhand, India', *International Journal of Preventive Medicine*, 12.

Kati, R.K., Opod, H. and Pali, C. (2018) 'Gambaran emosi dan tingkat kecemasan pada pasien hipertensi di Puskesmas Bahu', *eBiomedik*, 6(1).

Katsi, V. *et al.* (2017) 'Arterial hypertension and health-related quality of life', *Frontiers in Psychiatry*, 8, p. 270.

Kemenkes RI (2018) 'Hasil Riset Kesehatan Dasar Tahun 2018', *Kementrian Kesehatan RI*, 53(9), pp. 1689–1699.

- Liu, Y. *et al.* (2023) 'Development and validation of a disease-specific quality of life measure QLICD-HY (V2.0) for patients with hypertension', *Scientific Reports*, 13(1), pp. 1–11. Available at: <https://doi.org/10.1038/s41598-023-39802-2>.
- Mahajan, S. *et al.* (2020) 'Assessment of prevalence, awareness, and characteristics of isolated systolic hypertension among younger and middle-aged adults in China', *JAMA Network Open*, 3(12), pp. e209743--e209743.
- Ngadiran, A. (2019) 'Hubungan Karakteristik (Umur, Pendidikan, Dan Lama Tinggal Di Panti) Dengan Tingkat Kecemasan Lansia', *Jurnal Ilmu Kesehatan Immanuel*, 13(2), pp. 104–108.
- Ngoc, T.N. *et al.* (2023) 'Quality of life among urban hypertensive patients', *International Journal of Public Health Science*, 12(3), pp. 981–988. Available at: <https://doi.org/10.11591/ijphs.v12i3.22694>.
- Park, Y. *et al.* (2018) 'The influence of family adaptability and cohesion on anxiety and depression of terminally ill cancer patients', *Supportive Care in Cancer*, 26, pp. 313–321.
- Sari, M.T. and Susanti, S. (2017) 'Gambaran Kualitas Hidup Lansia di Panti Sosial Tresna Werdha Budi Luhur dan Lansia di Kelurahan Paal V-Kota Jambi', *Jurnal Ilmiah Universitas Batanghari Jambi*, 17(2), pp. 178–183.
- Wade, C. (2023) *Mengatasi Hipertensi*. Bandung: Nuansa Cendekia.
- Wahyuningsih, W. and Priyono, W. (2020) 'Kecemasan Wanita Lanjut Usia yang Mengalami Hipertensi', in.
- Wang, X. *et al.* (2023) 'Relationship between quality of life, fear of disease progression, and coping styles in patients with pulmonary hypertension: A network analysis', *Research in Nursing & Health*, 46(5), pp. 546–557.
- Wulandari, D.K. (2019) 'Hubungan Tingkat Kemandirian Aktivitas Sehari-hari dengan Kualitas Hidup Lansia
- Zhang, M. *et al.* (2021) 'Relationship between Family Function, Anxiety, and Quality of Life for Older Adults with Hypertension in Low-Income Communities', *International Journal of Hypertension*, 2021. Available at: <https://doi.org/10.1155/2021/5547190>.