

RELATIONSHIP OF DEPRESSION LEVEL ON QUALITY OF LIFE OF ELDERLY HYPERTENSION PATIENTS IN RW 03 DESA LIMBANGAN KEC. LIBANGAN KAB. KENDAL

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ABSTRACT

Hypertension is still a health problem faced by the elderly which is basically quite complex. Health problems that usually arise, for example, are related to changes in the cardiovascular system, which if left unchecked will interfere with the function of other organs. So the issue arises when feelings of depression are experienced by the elderly. This study aims to determine the level of depression on the quality of life of elderly people with hypertension. The type of research used is the quantitative method. The research instrument used was a questionnaire. The research respondents consisted of 40 elderly people with hypertension who were taken using a total sampling technique. This research was conducted on June 2021 in RW 03 Limbangan Village, Limbangan District, Kendal Regency. The test analysis method used is Rank Spearman. There is a relationship between the level of anxiety and depression and the quality of life of the elderly with hypertension in RW 03, Limbangan Village, Limbangan District, Kendal Regency. The results of the analysis using the Spearman rank correlation test regarding depression on the quality of life of elderly people with hypertension, p value = 0.001 means p value ≤ 0.05 , coefficient value or r value = 0.498 indicates moderate closeness with a negative direction, which means that the higher the level of depression, the lower the level of quality of life.

Conclusion: There is a relationship between the level of depression on the quality of life of the elderly with hypertension.

Keywords: Depression, Quality of life

INTRODUCTION

Elderly is a process or final stage in every human life cycle. According to (Puspawati & Rekawati, 2017), the age limit is someone who is 60 years old or more. In Law No. 13 of 1998 concerning the welfare of the elderly, which includes the elderly is someone who is 60 years old or more. (Dwi Retnaningsih, 2018) *World Health Organization* (WHO) estimates that by 2025 the number of elderly people worldwide will reach 1.2 billion people which will continue to grow to 2 billion people in 2050. WHO also estimates that 75% of the world's elderly population in 2025 will be in developing countries, half of the world's elderly are in Asia. The number of elderly people in Indonesia reaches 23.66 million elderly people in Indonesia (9.03%). It is predicted that the number of elderly people in 2020 (27.08 million), in 2025 (33.69 million), in 2030 (40.95 million), and in 2035 (48.19 million) (Friska et al., 2020).

Changes in the cardiovascular system in the elderly, such as hypertension because the vessels that were previously flexible and elastic will harden and stiffen, so that the blood vessels are unable to supply the needs of blood flow to every organ (Kurniadi & Nurrahmani, 2015). Hypertension is a condition when the blood pressure in the blood vessels is chronically elevated. This can happen because the heart works harder to pump blood to meet the body's needs for oxygen and nutrients. Based on data on hypertension cases according to *World Health Organization*, it shows that around 1.13 billion people in the world suffer from hypertension, which means that every 1 in 3 people in the world are diagnosed with hypertension, and only 36.8% of them are taking medication. The number of people with hypertension continues to increase every year, and it is estimated that in 2025 there will be 1.5 billion people affected by hypertension and it is estimated that every year 10.44 million people die from hypertension and its complications (Purwono et al., 2020).

Based on the results (Riskedas, 2018) shows that the prevalence of hypertension in Indonesia with a population of around 260 million is 34.1%. And the prevalence of the population in Central Java Province with hypertension is 37.57%. The prevalence of hypertension in women (40.17%) was higher than men (34.83%). Various changes in the social environment can also be felt by the elderly, such as an economic decline, loss of family members or close friends, loss of work, and the inability to participate in community activities. This causes the elderly to easily experience mental disorders, especially depression (Nareswari, 2021).

Hypertension or often known as high blood pressure is a condition where there is an increase in blood pressure that exceeds the normal limit of 120/80 mmHg. According to WHO (World Health Organization), the blood pressure limit that is considered normal is less than 130/85 mmHg, and if the blood pressure exceeds 140/90 mmHg it is declared hypertension (Tarigan et al., 2018). Hypertension in the elderly occurs because blood vessels that were previously flexible and elastic will harden and stiffen, so that blood vessels are unable to supply the needs of blood flow to every organ (Kurniadi & Nurrahmani, 2015).

The impact of hypertension on the quality of life, namely the physical, psychological, and social dimensions (Suardana et al., 2010). This condition ultimately causes discomfort and can affect the quality of life in people with hypertension. A decrease in the quality of life in patients with hypertension results in obstacles to physical health functions (such as headaches, and vomiting), psychological (such as vomiting blood), and social relationships (such as being unable to move) (Hasana & Harfe'i, 2019).

Depression is an emotional condition that is usually characterized by feelings of worthlessness, guilt (withdrawal, loss of appetite, loss of interest in daily activities, unable to sleep) and intense sadness. Depression is a *mood*, a prolonged emotional condition that affects mental processes (feeling, thinking and behaving) (Dirgayunita, 2020). Various changes in the social environment can also be felt by the elderly, such as an economic decline, loss of family members or close friends, loss of work, and the inability to participate in community activities. This causes the elderly to easily experience mental disorders, especially depression (Nareswari, 2021).

According to (Azizah & Hartanti, 2016) defining health-related quality of life can be interpreted as an emotional response from sufferers to social, emotional, work and relationships between families, a sense of happiness, a match between expectations and existing reality, satisfaction in doing things. physical, social and emotional functioning as well as in the ability to socialize with others. The quality of life of the elderly with hypertension is influenced by individual factors and environmental factors. Individual factors including age, gender, education, marital status, occupation, duration of suffering from hypertension, and regularity of treatment can affect the quality of life of the elderly with hypertension (Chendra, R., Misnaniarti., & Mohammad, 2020).

METHOD

The type of research used is quantitative associative research. Associative quantitative research is research that is asking for the relationship between two or more variables. The research design used is a correlational design, which is to determine the relationship between one variable and another variable. This study used a *cross-sectional*. That is research that requires a relatively very short time and in one time (Notoadmojo, 2018). The place of this research was carried out in RW 03, Limbangan Village, Kec. District balance. Kendal in August 2021, using the questionnaire method. The population in this study were elderly patients with hypertension in RW 03, Limbangan Village, Kec. District balance. Kendal.

The sample in this study were elderly people with hypertension who were more than 60 years old, cooperative, and controlled. From the results of these criteria, the researchers took samples for this quantitative study with a total of 40 respondents. The sampling technique in this study uses *total sampling*.

RESULTS

Gender
Distribution of respondents frequency based on Gender

Sex	Total	Percentage (%)
L	15	37.5
P	25	62.5
Total	40	100

The results of the distribution of characteristics by gender, it was found that of the 40 respondents most of them were female with the category "P" as many as 25 respondents, and the male gender with the category "L" as many as 15 respondents.

Age
Distribution of respondents frequency by age in RW 03 Desa Limbangan Kec. District balance. Kendal

Age	Total	Percentage (%)
60-65 Years	19	47.5
66-70 Years	7	17.5
>71 Years	14	35.0
Total	40	100

The results of the distribution of age group characteristics, based on the results above 47.5% of respondents aged between 60-65 years, 17.5% of respondents are between 66-70 years old, and 35.0% of respondents are over 71 years.

Education
Frequency distribution of respondents based on education RW 03 Desa Limbangan Kec. District balance. Kendal

Education	Total	Percentage (%)
No School	8	20
Elementary School Graduation	32	80
Junior High School Graduation	0	0
High School Graduate	0	0
Total	40	100

Based on the table above, it can be seen that 20% of respondents who do not go to school, and 80% of those who have finished elementary school education.

Depression level
Distribution of respondents frequency based on depression level in RW 03 Desa Limbangan Kec. Limbangan, Kab. Kendal

Depression	Total	Percentage (%)
Normal	0	0
Mild Depression	31	77.5
Moderate Depression	9	22.5
Severe Depression	0	0
Total	40	100

In the table above, the results show that most of the 40 respondents had mild depression, namely 77.5 respondents, and those who have moderate depression are 22.5 respondents.

Quality of life

Distribution of respondents frequency based on quality of life in RW 03 Desa Limbangan Kec. District balance. Kendal

Quality of Life	Total	Percentage (%)
Good	0	0
Enough	31	77.5
Less Good	9	22.5
Total	40	100

In the table above shows the results that of the 40 respondents most of the respondents have a sufficient quality of life as many as 77.5% of respondents and 22.5% of respondents have a poor quality of life.

The relationship between depression level and quality of life

Relationship between depression level and quality of life for the elderly with hypertension in RW 03, Limbangan Village, Kec. Limbangan, Kab. Kendal

Depression	Quality of Life for Elderly Patients with Hypertension						<i>p value</i>		<i>r</i>
	Good		Fairly		Poor		Total		
	F	%	F	%	F	%	F	%	
Normal	0	0	0	0	0	0	0	0	0.001 -0.498
Mild	0	0	31	77.5	0	0	31	77.5	
Moderate	0	0	0	0	9	22.5	9	22.5	
Severe	0	0	0	0	0	0	0	0	
Total	0	0	31	77.5	9	22.5	40	100	

For the level of depression on the quality of life of elderly people with hypertension in RW 03 Limbangan Village, *p value* of 0.001 (*p value* <0.005) means H_a is accepted and H_0 is rejected, which means there is also the relationship between depression and the quality of life of elderly people with hypertension in RW 03 Limbangan Village and obtained the value of the closeness of the relationship ($r = -0.498$) which means that the strength of the correlation is in a negative direction, meaning that the higher the depression, the lower the level of quality of life.

DISCUSSION

Characteristics of Respondents

Gender

The results of this study were based on the known gender of 40 respondents, indicating that most of the respondents were female as many as 25 respondents (62.5%) and for male sex as many as 15 respondents (37.5%). This study shows that women are more at risk of developing hypertension than men. The results of this study are in line with research conducted by (Putri, Nabilla Sholikhah, 2021) that the female population in Indonesia is greater than the male population. The results of this study are also in line with research from (Nasrani & Susi, 2015) which explains that the incidence of hypertension is more suffered by women due to a decrease in the hormone estrogen when entering old age, so that they are more susceptible to hypertension.

Age

In the results of this study, it can be seen that the respondents aged 60-65 years were 19 people (47.5%), aged 66-70 years were 7 people (27.5%), and those aged >71 years were 14 people (35%). It shows that the majority of respondents are aged 60-65 years. The results of this study are in line with (Suhadak et al., 2011) increasing age, the risk of hypertension increases. Although hypertension can occur at any age, it is most often found in people aged 60-74 years (46.5%). It's actually normal for blood pressure to increase slightly with age. This is caused by natural changes in the heart, blood vessels and hormones. But if these changes are accompanied by other factors, it can trigger hypertension.

The results of this study are also in line with research (Bin Mohd Arifin & Weta, 2016) which suggests that in Indonesia, at the age of 25-44 years the prevalence of hypertension is 29%, at the age of 45-64 years it is 51%, and at the age of >65 years by 65%. These data prove that the elderly aged >65 years are more at risk of developing hypertension. This happens because at that age the large arteries lose their flexibility and become stiff because of that blood at each heartbeat is forced to pass through the blood vessels that are narrower than usual and cause blood pressure to rise.

Education

The results of this study indicate that some respondents did not go to school as many as 8 people (20%), and 32 people who finished elementary school (80%). From these data it shows that the higher or lower the level of education is very influential in overcoming the problem. The results of this study are in line with research (Wahyuningsih & Priyono, 2020) which suggests that the higher a person's education level, the lower a person's level of anxiety. The level of education is the dominant factor associated with the level of anxiety in the elderly.

The results of this study are in line with research from (Bin Mohd Arifin & Weta, 2016) which explains that the majority of the elderly have a low level of education, namely the elementary school (SD) level of 34 people (68%) of 50 elderly. Education is very influential on the absorption of one's information. The higher the level of education, it will be easier for someone to absorb information. People with higher education tend to be less likely to develop hypertension than people with low education. Education is significantly related to lifestyle, stress and nutritional status. According to (Notoadmojo, 2018), that generally the higher a person's education, the better his knowledge, so the level of education will determine whether a person is easy or not in understanding the knowledge they acquire.

Health education is very important for respondents who suffer from high blood pressure. This makes it possible to understand the risk of disease effects and change a healthy lifestyle. Health education about healthy lifestyles for people with hypertension is an effort to encourage respondents to adopt a low-salt diet, exercise regularly such as walking in the morning or cycling, doing activities at home, and reducing stress. Sleep on time, avoid disputes with others, eat less, and quit smoking to prevent obesity. (Retnaningsih & Larasati, 2021)

Depression

The results of this study showed that the majority of the 40 respondents had mild depression, namely 31 respondents (77.5%), and moderate depression, namely 9 respondents (22.5%). From the results of the study that the female sex has a higher risk of depression than men. The results of this study are in line with research conducted by (Amelia et al., 2018) that the female gender has a higher risk of depression than the male gender. This is due to the impact of biological changes, namely hormonal and psychosocial women have a role that must be carried, which can be a *stressor* or trigger for depression ((Ballo & Kaunang, 2012) in (Utami et al., 2018)).

Quality of life

The results showed that most of the respondents had poor or moderate quality of life, namely 31 respondents or 77.5%, due to having a history of hypertension and still being able to carry out some daily activities independently even though some other activities such as traveling still needed help. Which means having a perception that their current position in physical, psychological, social relations, and environmental health is moderate.

It has been stated by (Suryani, 2016) that quality of life is an individual's perception of their position in life and their relationship to goals, expectations, standards that have been set and one's concerns. Quality of life is measured from four dimensions, namely: the dimension of physical health, the dimension of psychological well-being, the dimension of social relations, and the dimension of relationship with the environment.

Bivariate analysis of the Relationship between depression levels and quality of life for elderly patients with hypertension

The results of the study of 40 respondents in RW 03 Limbangan Village showed that 31 respondents experienced mild depression. A total of 9 respondents who get moderate depression. For poor quality of life as many as 31 respondents, and 9 respondents got poor quality of life.

According to research (Mahadewi & Ardani, 2018), 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 depressed, but not statistically significant ($p=0.579$). Likewise, moderate to severe depression increased the chance of experiencing poor quality of life 2.778 times compared to not depressed, but not statistically significant ($p=0.284$).

The results of the research conducted (Amelia et al., 2018), obtained data that of all the elderly who did not experience depression, had a good quality of life, namely 8 people (9.52%), patients with moderate depression, 13 people (86.7%) had a moderate quality of life, and all patients with moderate to severe depression had a poor quality of life as much as 100%. The results of the Chi square test found that there was a significant relationship between depression status and the quality of life of the elderly ($p<0.05$).

CONCLUSION AND SUGGESTION

Based on the results of research, data processing, and discussion of the relationship between depression levels and the quality of life of elderly people with hypertension in RW 03, Limbangan Village, Kec. District balance. Kendal with a total of 40 respondents, the researchers concluded The results showed that respondents who experienced mild depression were 31 people or 77.5%. Most of the respondents experienced moderate depression as much as 9 or 22.5%, of the total number of respondents. Most of the respondents with sufficient quality of life were 31 respondents or 77.5% and 9 respondents who had poor quality of life were 9 or 22.5% of the total respondents. Statistical test *Spearman Rank* regarding the level of depression on the quality of life of the elderly with hypertension in RW 03 Limbangan Village obtained a *p value* of $0.001 < 0.005$, indicating H_a is accepted and H_0 is rejected. This means that there is a relationship between depression and the quality of life of the elderly with hypertension in RW 03, Limbangan Village, Kec. District balance. Kendal.

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