

## **THE RELATIONSHIP BETWEEN LONG-SUFFERING FROM HYPERTENSION WITH THE LEVEL OF ANXIETY IN ELDERLY PEOPLE AT THE COMMUNITY HEALTH CENTER ACEH BESAR REGENCY, INDONESIA**

**Muhammad Reza Rizki<sup>1</sup>, Ellyza Fazlylawati<sup>2</sup>, Reca Melati Phonna<sup>3</sup>,  
Nabella<sup>4</sup>, Arza Rufli<sup>5</sup>**

<sup>1,3,4,5</sup> Universitas Bina Bangsa Getsempena, Banda Aceh, Indonesia

<sup>2</sup> Universitas Abulyatama, Aceh Besar, Indonesia

\* Corresponding email: [muhammadrezarizki91@gmail.com](mailto:muhammadrezarizki91@gmail.com)

### **ABSTRACT**

Hypertension or high blood pressure is an increase in systolic blood pressure of more than 140 mmHg and diastolic blood pressure of more than 90 mmHg so it is often referred to *as the silent killer* because it does not show significant symptoms. Hypertension is one of the main causes heart disease and stroke. Every year, hypertension is the cause of death in the figure of 9.4 million people is caused by heart disease and stroke, and if combined, heart disease and stroke are causes of deadly diseases number one in the world. The purpose of this study is to find out if there is a correlation between the length of time suffering from hypertension and the level of anxiety of elderly patients. The type of research used was a quantitative study on 58 respondents at the Community Health Center Aceh Besar Regency using a *cross sectional study* design with a sampling technique, namely *convenience sampling*. Data collection used the *Hamilton Anxiety Rating Scale* (HARS) questionnaire which was analyzed using Kendall Tau Test. The value between the duration of suffering from hypertension and the level of anxiety is known amounting to 0.417 with a significant value of 0.000 ( $< 0.05$ ). The results obtained were that most of the patients with moderate hypertension with a BP of 160-180 mmHg were 28 respondents, 24 respondents had hypertension  $> 11$  years, and 31 respondents had mild anxiety levels. *The chi-square* value between the length of time suffering from hypertension and the level of anxiety was  $p = 0.000$ . The conclusion of this study is that there is a relationship between the length of suffering from hypertension and the level of anxiety in the elderly.

**Keywords:** *Hypertension, Suffering from Hypertension, Anxiety.*

## **INTRODUCTION**

Non-communicable diseases (NCDs) are the leading cause of death globally. One of the diseases that is a serious problem is high blood pressure (hypertension). Hypertension is an increase in blood pressure in the arteries where the systole pressure is equal to or equal to 140 mmHg or the diastole pressure is greater than or equal to 90 mmHg. Hypertension is often referred to as *the silent killer* because it does not show significant symptoms (Ministry of Health of the Republic of Indonesia, 2018).

According to *the World Health Organization* (2019) the prevalence of hypertension varies across regions and also by country income group. The African region has the highest prevalence of hypertension at 27%, while the American region has the lowest prevalence of hypertension at 18%. A current trend review shows that the number of adults with hypertension increased from 594 million in 1975 to 1.13 billion through 2015, with the increase mostly seen in low- and middle-income countries. In addition, the prevalence of hypertension in the world according to the World Health Organization (2022) increased by 22% of the world's total population. Meanwhile, in Indonesia, hypertension cases have increased by 8.31%, from 25.8% in 2013 to 34.11% in 2018.

An unhealthy lifestyle can also cause hypertension, namely with an unhealthy diet such as consuming foods that are high in fat or cholesterol such as: fried foods, foods with coconut milk, satay, and curry (Cumayunaro & Dephinto, 2018). The increasing prevalence of hypertension from year to year is due to the increasing population, lack of physical activity and an unhealthy lifestyle.

Basic Health Research Data in 2018, stated that out of a total of 1.7 million deaths in Indonesia, the risk factor that causes death is hypertension at 23.7%. The estimated number of hypertension cases in Indonesia is 63,309,620 people, while the death rate in Indonesia due to hypertension is 427,218 deaths (Ministry of Health of the Republic of Indonesia, 2018).

*The World Health Organization* (WHO) (2017) states that depression and anxiety are common mental disorders with the highest prevalence, more than 200 million people around the world suffer from anxiety. Based on data from the Ministry of Health (2021), as many as 18,373 people experience anxiety disorders, this figure has increased by 6.8% of the total population of Indonesia and more than 23,000 are depressed.

One of the problems that is commonly experienced by everyone is anxiety. Anxiety is a reaction of excessive anxiety or fear accompanied by strong emotions about something that is considered life-threatening. A common reaction to illness due to illness is considered a threat to life, health, and the integrity of the body (Antoro & Amatiria, 2018).

Anxiety can be defined as a disorder of the nature of feelings characterized by deep and persistent feelings of fear or worry, not experiencing disturbances in assessing reality, the personality still intact or

not experiencing normal personality cracks. Mental stress or anxiety is caused by excessive concern for the problems that are being faced real or imagined may occur. The most common anxiety is caused by illness, one of which is hypertension. So it is necessary to prevent it early so that hypertension does not cause new problems for patients. This is what makes patients and their families anxious about the patient's condition (Hawari, 2013).

## **METHODS**

This study is a quantitative research with descriptive correlational where the researcher examines the relationship between two variables and aims to reveal the correlative relationship between variables using a *cross sectional study* design. The population in this study is all elderly patients who experience anxiety at the Community Health Center Aceh Besar Regency, Indonesia. The sample in this study is elderly patients who experience anxiety with hypertension totaling 58 patients. In this study, the *convenience sampling* technique is used, which is to select samples based on the time and place encountered by the researcher and included in the sample criteria. In this study, data collection was carried out using the *Hamilton Anxiety Rating Scale* (HARS) questionnaire to assess anxiety symptoms experienced in the elderly with hypertension.

## **RESULTS AND DISCUSSION**

### **1. Univariate Analysis**

**Table 1.** Frequency of Gender of Hypertensive Patients in the Elderly

<b>No</b>	<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
1	Female	41	70,7
2	Male	17	29,3
	<b>TOTAL</b>	58	100

From the results of the study in table 1, it can be seen that the most respondents who visited the health center were elderly patients with a female gender as many as 41 people (70.7%). So, female are currently more dominant in experiencing hypertension, this is because if female enter menopause, the risk of hypertension increases so that the prevalence is higher than male. This is caused by the production of the hormone estrogen decreasing during menopause, causing an increase in blood pressure (Artiyaningrum, 2016).

**Table 2.** Distribution of Blood Pressure Frequency in the Elderly

No	Blood pressure	Frequency	Percentage
1	Moderate Hypertension	28	48,3
2	Mild Hypertension	26	44,8
3	Severe Hypertension	4	6,9
	<b>TOTAL</b>	58	100

From the results of the study in table 2, it can be seen that the elderly who visited the health center obtained data on patients experiencing moderate hypertension (160-180 mmHg) as many as 28 people with (48.3%). This is due to the general population of adults aged 60 years or older and at this time pharmacological treatment should be started when the systolic blood pressure is 150 mmHg or when the diastolic blood pressure is around 90 mmHg or more (Diartin, Zulfitri & Erwin, 2021).

**Table 3.** Distribution of Long-Suffering from Hypertension in the Elderly

No	Long-Suffering	Frequency	Percentage
1	> 11 years	24	41,4
2	6-10 years	19	32,8
3	1-5 years	15	25,9
	<b>TOTAL</b>	58	100

From the results of the study in table 3, it can be seen that the elderly who visited the health center obtained data on patients with hypertension > 11 years as many as 24 people (41.4%). This shows that increasing age affects the occurrence of hypertension so that the risk of developing the disease becomes greater. Blood pressure in the elderly (elderly) will tend to be high so that older people are at risk of hypertension (high blood pressure). Increasing age causes blood pressure to increase, because the walls of the arteries in the elderly will experience thickening which results in the accumulation of collagen substances in the muscle layer, so that blood vessels will gradually narrow and become stiff (Angraini, 2014).

**Table 4.** Distribution of Anxiety Levels of Hypertensive Patients in the Elderly

No	Anxiety Level	Frequency	Percentage
1	Mild Anxiety	31	53,4
2	Moderate Anxiety	16	27,6
3	No anxiety	11	19,0
	<b>TOTAL</b>	58	100

From the results of the study in table 3, it can be seen that the majority of elderly people with hypertension experience mild anxiety by 31 people (53.4%). In this case, anxiety can cause various negative effects on the body, such as an abnormal heartbeat (arrhythmia), increased blood pressure, increased cardiac output, as well as a faster heartbeat. This condition, if not managed properly, can lead to serious complications in patients, including an increased risk of coronary heart disease (Sari, Rohmawati, Faizah, Hasina, & Putri, 2023).

## 2. Bivariate Analysis

**Table 5.** The Relationship Between Long Suffering From Hypertension And The Anxiety Level Of Hypertensive Patients In The Elderly

Variable	Anxiety Level								p-value	
	No anxiety		Mild anxiety		Moderate anxiety		Total			
	f	%	f	%	f	%	f	%		
Long-Suffering from Hypertension										0,000
a. > 11 years	2	3,4	10	17,2	12	20,7	24	41,4		
b. 6-5 years	3	5,2	13	22,4	3	5,2	19	32,8		
c. 1-5 years	6	10,3	8	13,8	1	1,7	15	25,9		
<b>TOTAL</b>	11	19,0	31	53,4	16	27,6	58	100		

Based on table 4, it can be seen that the longest suffering from hypertension in the elderly is in the category > 11 years, namely 24 people (41.4%) with the highest level of moderate anxiety, namely 12 people (20.7%), while the lowest is 2 people (3.4%) with no anxiety. The data showed a significant value of 0.000 (< 0.05) which can be interpreted that there is a relationship between the length of suffering from hypertension and the level of anxiety in hypertension patients at the Community Health Center Aceh Besar Regency, Indonesia.

## Discussions

Based on the results of the above study, it can be seen that 58 respondents on average experienced anxiety with the highest long-term category of suffering from hypertension, namely > 11 years old, looking to have suffered from hypertension for a long time in the elderly with the most in the > 11-year-old category, namely 24 people (41.4%) with the highest level of moderate anxiety, namely 12 people (20.7%), while the lowest was 2 people (3.4%) with no anxiety. The data showed a significant value of 0.000 (< 0.05) which can be interpreted that there is a relationship between the

length of suffering from hypertension and the level of anxiety in hypertensive patients at the Community Health Center Aceh Besar Regency, Indonesia. It can be stated that there is a significant relationship between the duration of hypertension and the level of anxiety of respondents. The longer the respondents experienced hypertension, the higher the level of anxiety felt by the respondents (Laksita, 2016). A person who has suffered from hypertension for a long time may become anxious caused by hypertension which tends to require relatively little treatment long, there is a risk of complications and can shorten life (Hawari, 2013). High blood pressure if not treated or treated, in the long term will damages blood vessels throughout the body, complications that can occur due to hypertension is stroke, diabetic retinopathy, acute or chronic kidney disease and coronary heart disease (Wijaya & Putri, 2013).

Hypertension classification has adverse health impacts such as ventricular hypertrophy, encephalopathy, myocardial infarction, nephrosclerosis, renal insufficiency, stroke. This problem results in the elderly experiencing anxiety, dementia, sleep, physical, and social disorders. Social problems can occur because the elderly do not feel satisfaction in their lives, so slowly the elderly will feel isolated and the social interaction of the elderly will decrease (LeMone, Burke & Bauldoff, 2016). In this case, complications of hypertension are also a problem that can trigger anxiety in sufferers. Hypertension will generally cause problems that can aggravate the disease and affect the patient's daily activities. Because of this, patients are worried that they will lose their roles, status, power and others so that it can cause them to become less valuable in the eyes of their families and society.

## **CONCLUSION**

Based on the results of the study, it was shown that there was a significant relationship between the length of suffering from hypertension and anxiety in the elderly with  $p = 0.000$ . In this case, anxiety is a problem that is generally experienced for hypertensive patients with high blood pressure, because the increasing anxiety of elderly patients about their disease also triggers a significant increase in blood pressure. Therefore, it is very important for the elderly to be able to control their anxiety so that the hypertension experienced does not getting worse.

## **ACKNOWLEDGEMENT**

Based on the results of this study, it is recommended to conduct further research on other factors that can affect the increase in blood pressure in hypertension patients in Aceh Besar Regency so that it can increase knowledge and prevent this hypertension disease from getting worse in the future.

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