RELATIONSHIP BETWEEN PATIENT KNOWLEDGE LEVEL AND COMPLIANCE WITH TAKING ANTI-HYPERTENSION MEDICATION

Newzlen Okterin[1*]

[1]Departement of Nursing Student, Politeknik Kesehatan Kementerian Kesehatan Jambi, Indonesia
Corresponding author: okterinn@gmail.com

ABSTRACT

Background: The World Health Organization (WHO) in 2021 stated that around 23.2% of adults worldwide suffer from hypertension. The prevalence of hypertension worldwide is expected to continue to increase to **36.9%** in 2030. Non-compliance with taking hypertension medication can lead to a 3.5-fold risk of uncontrolled blood pressure, thereby increasing the risk of serious health complications.
Method: This research was conducted using a quantitative descriptive cross-sectional method using a knowledge questionnaire and an adherence level questionnaire using the MMAS-8 (Morisky Medication Adherence Scale). The number of respondents involved was 71 people who were selected using purposive sampling. Data analysis includes univariate and bivariate analysis with the chi-square test.
Result: Based on the univariate test, it was found that the higher the knowledge, the higher the compliance, and the lower the knowledge, the lower the compliance.
Conclusion: The results of which means there is a relationship between the level of patient knowledge and compliance with taking anti-hypertensive medication at the Sungai Bungkal Community Health Center.

Keywords: hypertension, knowledge, compliance

INTRODUCTION

The results of Basic Health Research (RISKESDAS) in 2018 stated that the estimated number of hypertension cases in Indonesia was 63,309,620 people, while the death rate in Indonesia due to hypertension was 427,218 deaths (6% of hypertension cases). The prevalence of hypertension based on measurement results in the population aged ≥18 years is 34.1%. From the prevalence of hypertension of 34.1%, it is known that 8.8% were diagnosed with hypertension. And of the number of hypertension diagnoses, there were 13.3% of people who did not take medication, and 32.3% of people who did not regularly take medication. This shows that the majority of sufferers do not know that they have hypertension so they do not receive treatment. According to the World Health Organization (WHO), in 2021, around 29.2%

of adults worldwide suffer from hypertension. The prevalence of hypertension worldwide is expected to continue to increase to 36.9% in 2030 (WHO, 2017).

Based on data obtained from the Sungai Penuh Health Service in 2023, the most cases of hypertension were found in the Sungai sungau Community Health Center. According to morbidity data for the elderly at the Sungai Bungkal Community Health Center in 2023, hypertension is the disease with the highest number of cases. Based on observations of medical records at the Sungai Bungkal Community Health Center, it was found that 80% of hypertensive patients had abnormal blood pressure. From the results of interviews with 10 patients, it was discovered that 7 patients did not take their medication regularly and often forgot. Non-compliance with taking medication is related to the side effects of hypertension medication which

must be taken for life. This causes patients to be afraid of long-term adverse effects or other complications. After further observation, it turned out that as many as 60% of patients lacked knowledge about hypertension.

Non-compliance of hypertensive patients in taking anti-hypertensive drugs is the cause of the still high blood pressure of patients at the Sungai Bungkal Community Health Center. Non-compliance with taking hypertension medication can lead to a 3.5-fold risk of uncontrolled blood pressure, thereby increasing the risk of serious health complications such as heart disease, stroke, heart failure and kidney disease (Zhou & Carrillo-Larco, 2021). Patients feel uncomfortable or even experience unpleasant side effects from anti-hypertensive drugs. Common side effects of anti-hypertensive drugs are dizziness, fatigue and nausea (Arsyad Muhammad Iqbal; Syed F. Jamal, 2023). Patients feel that hypertension is a harmless disease. Hypertension often occurs without complaints, so sufferers do not know that they have hypertension but then find that they have a disease or complications from hypertension. This can happen because hypertension usually does not cause obvious symptoms. As a result, patients may not consider it important to take medication.

The aim of this study was to analyze the relationship between knowledge about hypertension and adherence to taking anti-hypertensive medication at the Sungai Bungkal Community Health Center.

METHODS

This research is a quantitative descriptive type with a cross sectional method. The data collection technique was a survey using a questionnaire to determine the level of patient knowledge regarding compliance with taking anti-hypertensive medication at the Sungai Bungkal Community Health Center, Sungai Penuh City.

The questionnaire was prepared based on MMAS-8. To find the relationship, the chi square test was used in SPSS 20. The research was conducted in May 2024. Based on preliminary studies, the number of hypertensive patients in the elderly polyclinic was 192 people, and in the general polyclinic there were 58 people. So, the total population of this study was 250 people. The minimum sample size is calculated using the Slovin formula as follows:

$$n = \frac{N}{1 + Ne^2}$$
$$= \frac{250}{1 + (250 \times 0,1)^2}$$
$$= \frac{250}{1 + (250 \times 0,001)}$$
$$= 71,42$$
$$\Rightarrow 71$$

Information :

n = Sample Size

N = Population Size

e = Percent allowance for inaccuracy due to sampling error that is still tolerable or desirable, 10%

The sample results obtained were 71 respondents with the following inclusion criteria: (1) Hypertensive patients registered at the Sungai Bungkal Community Health Center, Sungai Penuh City, (2) Patients who were willing to fill out a questionnaire, (3) Speak Indonesian and can communicate well

The research instruments used were a 10-item hypertension knowledge questionnaire to measure the level of knowledge and an 8-item Morisky Medication Adherence Scale (MMAS-8) questionnaire to measure the level of adherence. Both questionnaires have gone through respondent validity and reliability tests with the same inclusion criteria as the sample.

The knowledge and compliance scores obtained were analyzed to see the relationship between the two, namely the chi-square test.

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RESULTS AND DISCUSSION

The level of knowledge of respondents regarding hypertension was obtained as follows:

Table 1. Knowledge Level of Hypertension Patients

Knowlage	F	%
Not Enough	28	39,4%
Enough	26	36,6%
Good	17	23,9%

The frequency results of the knowledge level of hypertensive patients show that many patients have a low level of knowledge, this could be a serious concern in disease management. Low levels of knowledge can result in a lack of understanding about the disease and how to manage it, which can ultimately lead to more serious complications and increased health risks.

The level of respondent compliance can be seen from table 2 as follows:

Table 2. Compliance Level of Hypertension Patients

Obedience	F	%
Low	31	43,7%
Currently	30	42,3%
High	10	14,1%

It was found that the majority had a low level of compliance, 43.7% of respondents, then a moderate level of compliance, 42.3% of respondents, and a high level of compliance, 14.1% of respondents. The distribution of knowledge results based on compliance is as follows:

Table 3. Distribution of Knowledge Based on Compliance

Knowlage	Obedience			Total
	Low	Currently	High	
Good	5 (7,0%)	7 (9,9%)	5 (7,0%)	17 (23,9%)
Enough	8 (11,3%)	15 (21,1%)	3 (4,2%)	26 (36,6%)
Not Enough	18 (25,4%)	8 (11,3%)	2 (2,8%)	28 (39,4%)
Total	31 (43,7%)	30 (42,3%)	10 (14,1%)	71 (100%)

From the results of the chi-square analysis between the level of knowledge and compliance, it was found that there was a relationship between the level of knowledge and the respondent's compliance.

Table 4. Relationship between Knowledge Level and Compliance

Chi-Square Tests				
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	11.133[a]	4	.025	.023
Likelihood Ratio	10.549	4	.032	.046
Fisher's Exact Test	10.186			.032
N of Valid Cases	71			

Based on the analysis test using chi-square on the expected count value, it was found that there were 3 columns with values less than 5. So that the p-value according to Fisher's Exact Test was 0.032 (<0.05), so a decision could be taken to reject H0 and accept H1 or it can be concluded that there is a relationship between the level of knowledge and compliance with taking anti-hypertensive medication at the Sungai Bungkal Community Health Center. This research is in line with research conducted by Ayuningtyas, (2022) with the title "The Relationship between the Level of Knowledge of Hypertension Patients and Compliance with Taking Antihypertensive Medicine at Mulyasari Hospital, North Jakarta" for 83 respondents, the result was a p-value of 0.023.

CONCLUSION

Relationship between the level of patient knowledge and compliance with taking anti-hypertensive medication.

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CONFLICT OF INTEREST

There was no conflict of interest in this article.

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