

## **Factors Affecting Non Compliance with Hypertension Patients' Drug Use in the Region of Cempaka Putih Puskesmas, Banjarmasin**

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### **ABSTRACT**

Hypertension is a health problem that is quite dangerous throughout the world because hypertension is a major risk factor that leads to heart disease and stroke. This disease is one of the leading causes of death in the world. Non-compliance with hypertension treatment will cause various complications of organ damage, such as causing heart disease, kidney failure or stroke which can lead to death To determine the factors that influence the non-compliance of drug use in hypertension patients in the Cempaka Putih Health Center Banjarmasin Using observational analytic with a cross-sectional approach Sampling with purposive sampling technique The sample is outpatient hypertension at Cempaka Putih Health Center Banjarmasin totaling 43 people, analyzed using descriptive analytical method and the Chi-Square test with 95% confidence level. Gender with P-Value = 0.059 and OR = 0.200, Family income with P-Value = 0.427 and OR = 1.950, and distance to health services has a significant effect with P-Value = 0.000 and OR = 1.778, while the other 2 factors, namely gender and family income, did not have a significant influence on non-adherence to the use of hypertension patients in the Cempaka Putih Health Center area, Banjarmasin. There are factors that influence non-compliance with the use of hypertension drugs in the Cempaka Putih Health Center Banjarmasin area, namely there is an influence between distance to health services and non-compliance with the use of hypertension drugs.

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### **INTRODUCTION**

Hypertension is a health problem that is quite dangerous worldwide because hypertension is a major risk factor that leads to cardiovascular diseases such as heart attack, heart failure, stroke and kidney disease, where in 2016 ischemic heart disease and stroke became the two main causes of death in Indonesia. the world [1]. Blood pressure or hypertension is an increase in systolic blood pressure of more than 140 mmHg and diastolic blood pressure of more than 90 mmHg on two measurements with an interval of five minutes in a state of sufficient rest and calm. Increased blood pressure that lasts for a long time (persistent) can cause damage to the kidneys (kidney failure), heart (coronary heart disease) and brain (causing stroke) if not detected early and receive adequate treatment. Many hypertensive patients with uncontrolled blood pressure and the number continues to increase. Therefore, the participation of all parties, both doctors from various fields of specialization in hypertension, the government, the private sector and the community is needed so that hypertension can be controlled [2].

Hypertension sufferers in Indonesia reached 8.4% based on a doctor's diagnosis in the population aged 18 years. in Indonesia is around 25.8% [3]. The prevalence results from blood pressure measurements from 2013 to 2018 can be said to have resulted in an increase of around 8.3%. Data from Risesda in 2018 also said that the prevalence of blood measurement results in patients with hypertension was in the province of South Kalimantan with a prevalence of around 44.1% or higher than the average prevalence of blood measurement results in Indonesia.

Prevention of hypertension can be done with various efforts, starting from the promotive and preventive levels to the curative and rehabilitative levels. According to the SEARO theory, WHO in 2013, the prevention and control of non-communicable diseases consisted of four efforts, namely through partnerships and advocacy, health promotion and risk factor reduction, Strengthening Health Services, surveillance and research systems and monitoring and evaluation.

The implementation of these efforts can have an impact on reducing morbidity, mortality and disability. Several policies carried out by the Ministry of Health in an effort to reduce the prevalence of hypertension in Indonesia are increasing access to first-level health facilities, optimizing the referral system, and improving the quality of health services [2].

Patients with hypertension in South Kalimantan are the highest province in Indonesia with a prevalence of 44.1% [3]. Based on data obtained from the Cempaka Putih Public Health Center, Banjarmasin City, in 2017 there were 2,346 hypertension cases, while in 2018 there was an increase of 32% and hypertension cases were 3,284, and in 2019 hypertension cases increased by 16% with 3.807 cases [4].

## **MATERIALS AND METHODS**

This research is quantitative using an observational design with a cross sectional research design with analytical descriptive method. Cross sectional is an observational study in which data collection for independent and dependent variables is carried out at the same time [5]. Data collection was obtained using the MMAS-8 questionnaire media.

The sample used in this study were 97 hypertensive patients in the Cempaka Putih Health Center area using purposive sampling technique, purposive sampling technique is a sampling process carried out based on considerations made by researchers with predetermined criteria.

## **RESULTS AND DISCUSSION**

### **Univariate Analysis**

#### **Gender**

Maintaining health, usually women pay more attention to their health than men. Differences in sick behavior patterns are also influenced by gender, women tend to treat themselves more often than men [5].

**Table 3.1.1 Results of Respondents' Characteristics by Gender**

Category Characteristics of Respondents	Total (n)	Percentage (%)
Gender		
Man	17	39.5
Woman	26	60.5

#### **Family Income**

The low level of family income is not necessarily the cause of non-compliance, because currently people who are categorized as poor can get free treatment without having to pay for treatment.

**Table 3.1.2 Results of Characteristics of Respondents based on Family Income**

Category Characteristics of Respondents	Total (n)	Percentage (%)
Family Income		

Rp. <2,900,000	30	69.8
Ro. >2,900,000	13	30.2

This research is based on the results of the table above, it is known that the most dominant characteristics of respondents based on family income are Rp. < 2,900,000 as many as 30 (69.8%).

### Distance to Health Services

The low use of health facilities such as health centers, hospitals, and so on, often the fault or cause is thrown at the distance between these facilities and the community which is too far (both physically and socially), high rates, unsatisfactory services, and so on. [5]

**Table 3.1.3 Results of Characteristics of Respondents based on Distance from Home to Health Services**

Category Characteristics of Respondents	Total (n)	Percentage (%)
Distance from home to health services		
Close	16	37.2
Far	27	62.8

This research is based on the results of the table above, it is known that the most dominant characteristics of respondents based on distance to health services are 27 people (62.5%).

### Compliance with Drug Use for Hypertensive Patients

From the score calculation, three categories of compliance will be obtained, namely for the calculation score equal to 8 including the high compliance category, the calculation score 6-<8 including moderate compliance and for the calculation score <6 including low compliance.

**Table 3.1.4 Results of Compliance with Drugs for Hypertensive Patients**

Drug Use Compliance	Total (n)	Percentage (%)
Not obey	36	83.7
Obey	7	16.3

### Bivariate Analysis

#### Gender

**Table 3.2.1 Results of the relationship between gender and non-adherence to drug use in hypertension patients in the Cempaka Putih Health Center area, Banjarmasin**

No.	Gender	Compliance with Drug Use for Hypertensive Patients				Amount	
		Not obey		Obey		n	%
		n	%	N	%		
1.	Man	12	70.6	5	29.4	17	100.0
2.	Woman	24	92.3	2	7.7	26	100.0
Amount		36	83.7	7	16.3	43	100.0
Chi Square P-Value = 0.059 (P-Value > 0.05) OR = 0.200							

This study based on the results of statistical analysis using the Chi-Square test, the results showed that there was no relationship between gender and non-adherence to drug use in hypertension patients with the P-Value being 0.059 (P-Value >0.05). Of the 43 respondents, men who were obedient to treatment, 5 respondents were obedient and those who were not compliant were 12 respondents. Meanwhile, the female gender who complied did the treatment 2 respondents and the non-compliant 24 respondents.

#### Family Income

**Table 3.2.2 Results of the relationship between family income and non-adherence to drug use in hypertension patients in the Cempaka Putih Health Center Banjarmasin**

No.	Family Income	Compliance with Drug Use for Hypertensive Patients				Amount	
		Not obey		Obey		n	%
		N	%	N	%		
1.	Rp. <2,900,000	26	96.7	4	12.3%	30	100.0
2.	Rp. >2,900,000	10	76.9	3	23.1%	13	100.0
Amount		36	83.7	7	16.3	43	100.0
Chi Squarep P-Value = 0.427 (P-Value > 0.05) OR = 1.950							

This study based on the results of statistical analysis using the Chi-Square test, the results showed that there was no relationship between family income and non-adherence to drug use in hypertension patients with the P-Value being 0.427 (P-Value > 0.05). From 43 respondents, family income is Rp. <2,900,000 who obey 4 respondents and those who do not obey 26 respondents, while the family income is Rp. >2,900,000 who obeyed 3 respondents and those who did not obey 10 respondents.

#### Distance Against Service Health

**Table 3.2.3 Results of the relationship between house distances and health services with non-adherence to drug use in hypertension patients in the Cempaka Putih Health Center area, Banjarmasin.**

No.	Home Distance	Compliance with Drug Use for Hypertensive Patients				Amount	
		Not obey		Obey		N	%
		N	%	N	%		
1.	Far	27	100.0	0	0.0	27	100.0
2.	Close	9	56.3	7	43.8	16	100.0
Amount		36	83.7	7	16.3	43	100.0
Chi Squarep P-Value = 0.000 (P-Value < 0.05) OR = 1.778							

This study based on the results of statistical analysis using the Chi-Square test, the results showed that there was a relationship between distance to health services and non-adherence to drug use in hypertension patients with the P-Value being 0.000 (P-Value > 0.05). Of the 38 respondents, far from obedient 0 respondents and non-compliant 27 respondents, while close to obedient 7 respondents and non-compliant 36 respondents. The results of the Odds Ratio (OR) test = 1.778, which means that people who are far away from health services have a 1.778 times greater risk of non-adherence in the use of drugs in hypertensive patients than people who have a distance from close health services.

## **CONCLUSION**

Based on research on factors that influence non-adherence to drug use in hypertension patients in the Cempaka Putih Health Center area, Banjarmasin, the following results were obtained:

1. Respondents who are not obedient in the use of hypertension drugs are 36 people (83.7%) and respondents who are obedient in the use of hypertension drugs are 7 people (16.3%).
2. There are factors that influence the non-compliance with the use of hypertension drugs in the Cempaka Putih Health Center Banjarmasin, namely there is a relationship between distance to health services and non-compliance with the use of hypertension drugs.

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