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## Counseling Relationship for Adherence to Taking Antihypertensive Drugs against Drug Adherence at Sekar Gembong Clinic, Pati, Indonesia

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### ABSTRACT

Hypertension is a modifiable cardiovascular risk factor for which effective drugs are available to manage elevated blood pressure and prevent complications. Poor adherence will be a source of psychological and medical complications and have an impact on the quality of life of patients, waste health care resources, and reduce individual trust in the health care system. This study aimed to determine the relationship between medication adherence counseling efforts and adherence to hypertension medication taking at Sekar Gembong clinic, Pati, Indonesia. This study is an experimental study, where as many as 50 research subjects participated in this study. Adherence assessment of drugs was carried out with MMAS-8. Data analysis was carried out using SPSS univariate and bivariate. Providing medication adherence counseling improved the level of adherence of research subjects to taking antihypertensive medication, where there was a decrease in the MMAS-8 score after counseling was given compared to before counseling was given,  $p < 0.05$ . In conclusion, there is a relationship between giving medication adherence counseling and adherence to antihypertensive drugs at Sekar Gembong clinic, Pati, Indonesia.

### 1. Introduction

Hypertension, high or increased blood pressure (systolic and diastolic levels  $\geq 140/90$  mmHg), is a public health problem worldwide. This contributes to the burden of cardiovascular disease, stroke, and kidney failure leading to premature death and disability. The global prevalence of adult hypertensive patients will be approximately 25% in 2024. It is estimated to be more than 40% of the Asian adult population. In Southeast Asia, it varies from 6% to 48%, namely 74.7 million people with hypertension, which will be 68% (125.5 million) in 2025. In Indonesia, it has highly variable rates ranging from 0.8% to 31.5%. Uncontrolled hypertension is still a major medical and psychosocial problem in both

developed and developing countries. Even if the risk factors, prevention, and control mechanisms are well known, negative outcomes from the disease may continue for years. This makes this disease the greatest and most dire social and health challenge.<sup>1-5</sup>

Hypertension (HTN) is a modifiable cardiovascular risk factor for which effective drugs are available to manage elevated blood pressure and prevent complications. However, the maximum beneficial effect of the right treatment plan can only be achieved if the patient strictly adheres to the recommendations. Poor adherence to antihypertensive drugs is an obstacle in the management of hypertension which results in high rates of hospitalization and death. This undermines the efforts of health facilities, health

professionals, and policymakers to improve and modify public health. Poor adherence will be a source of psychological and medical complications and have an impact on the quality of life of patients, waste health care resources, and reduce individual trust in the health care system.<sup>6-11</sup> This study aimed to determine the relationship between medication adherence counseling efforts and adherence to hypertension medication taking at Sekar Gembong clinic, Pati, Indonesia.

## 2. Methods

This study is an experimental study with a pre-post test approach. A total of 50 research subjects participated in this study, and the research subjects met the inclusion criteria. The inclusion criteria in this study were patients who were treated at the Sekar Gembong clinic, Pati, Indonesia, with a diagnosis of hypertension and received amlodipine 5 mg therapy and were willing to participate in this study, as evidenced by the signing of an informed consent sheet. This study was approved by the health research ethics committee at Institut Teknologi Kesehatan Cendekia Utama, Kudus, Indonesia

The subjects of the study were intervened in medication adherence counseling in the form of

providing information related to the urgency of the importance of medication adherence as well as being given various related flyers and leaflets organize the importance of taking medicine Not only in the form of providing information offline, counseling is also carried out by utilizing online communication through the Whatsapp group. Medication adherence of the study subjects before and after the intervention was assessed by the Morisky medication adherence scale (MMAS)-8 and pill count. Analysis data was carried out using SPSS software version 26 for windows. Univariate analysis was performed to determine the frequency distribution of each test variable, and bivariate analysis was performed to assess the relationship between medication adherence counseling with adherence drugs, p-value < 0,05.

## 3. Results and Discussion

Table 1 shows the basic characteristics subject study. The majority of research subjects are female. The majority of research subjects are between 41-50 years old. The majority of research subjects had their recent education, namely junior high and senior high school secondary education. The majority of research subjects have jobs as housewives.

Table 1. Basic characteristics of the research subject.

No.	Variable	Frequency	Percentage (%)
1.	Gender		
	Male	18	36
	Female	32	64
2.	Age		
	Up to 30 years	1	2
	31-40 years	7	14
	41-50 years	24	48
	> 50 years	18	36
3.	Recent education		
	Primary school	19	38
	High school	20	40
	College	11	22
4.	Occupation		
	Housewives	20	40
	Civil servant	13	26
	Private	17	34

Table 2 presents a comparison of drug adherence before and after counseling using MMAS-8. The results of the study showed that providing medication adherence counseling improved the level of adherence of research subjects to taking antihypertensive medication. Table 2 shows that there was a decrease

in the MMAS-8 score after counseling was given compared to before counseling was given,  $p < 0.05$ . A decrease in the MMAS-8 score indicates an improvement in the level of adherence of research subjects to taking medication.

Table 2. comparison of adherence drugs before and after being given counselling.

MMAS-8 score before intervention (Mean±SD)	MMAS-8 score after intervention (Mean±SD)	p-value*
6,7±0,3	3,2±0,1	0,001

\*Wilcoxon test,  $p < 0,05$ .

The results of this study indicate that intervention efforts to increase respondents' knowledge of the importance of medication adherence are associated with increased adherence someone to taking medicine. Various studies have stated that there is a relationship with a strong correlation between one's knowledge and one's behavior.<sup>12-16</sup> Aspects of knowledge are a basic foundation of behavior. Behavior is built from the interaction of various factors, one of which is knowledge. This study is in line with other research, which states that there is a significant relationship between a person's knowledge and behavior to adhere to medication.<sup>17-20</sup>

#### 4. Conclusion

There is a relationship between giving medication adherence counseling and adherence to antihypertensive drugs at Sekar Gembong clinic, Pati, Indonesia.

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