



## FACTORS RELATED TO COMPLIANCE WITH HYPERTENSION PATIENTS

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### Abstract

Hypertension that is continuously high for a long time can cause complications. Therefore hypertension must be detected early by checking blood pressure regularly and taking medication regularly. The aim of the study is to determine factors associated with compliance with hypertension treatment in the work area of Simpang Tuan Health Center. This type of research is analytic with cross sectional study approach. The samples of this study were 168 people suffering from hypertension in the working area of Simpang Tuan Health Center. The research sample was taken using a random sampling technique. The research instrument used was a questionnaire. Data collection techniques were collected by interviews using a questionnaire. There was no relationship between attitude ( $p = 0,119$ ) and family support ( $p = 0,803$ ) and the role of health workers ( $p = 0,203$ ) with hypertension patients' compliance in undergoing treatment at the Simpang Tuan Health Center in 2020. Community Health Center should provide health education to hypertensive sufferers outpatient care at Simpang Tuan Health Center and health education should not only be given to hypertension sufferers, but also to families and people who are the closest to hypertension sufferers so that they can participate in reminding and motivating hypertensive sufferers

**Keywords:** *Hypertension, Compliance, Treatment*

### 1. Introduction

Hypertension is a non-communicable disease which is a very serious health problem. This disease is categorized as the silent disease because the patient does not know that he has hypertension before having his blood pressure checked. In general, hypertension occurs in someone who is more than 40 years old or who has entered the middle age category (Kemenkes, 2018)

Riskesdas data for 2018 showed that the incidence of hypertension was 34.1% (Riskesdas, 2018). Data on the incidence of hypertension at the age of  $\geq 18$  years in Jambi Province in 2017 amounted to 25.15%. The prevalence of hypertension in men was 22.48% and the prevalence of hypertension in women was 27.30% (Dinkes, 2018).

Hypertension needs to be detected early, by checking blood pressure regularly (blood pressure control) (Kemenkes, 2013). Hypertension that does not get good treatment

causes complications such as stroke, coronary heart disease, diabetes, kidney failure and blindness. Stroke (51%) and coronary heart disease (45%) are the highest causes of death (Kemenkes, 2018). Based on Riskesdas (2013), hypertension is the 3rd leading cause of death in Indonesia at all ages with a proportion of deaths of 6.8% (Riskesdas, 2013).

The index of healthy families and patients with hypertension undergoing treatment in Jambi Province shows that the coverage of the healthy family index in Jambi Province is 0,13%. Of the 11 regencies / cities in Jambi Province, East Tanjung Jabung Regency has the lowest IKS of 0,05%. IKS data in Tanjung Jabung Timur Regency in 2019 show that from 12 Indicators of PIS-PK, hypertension sufferers had the lowest regular treatment, which was 29.76%.

Compliance with treatment of hypertensive patients is important because hypertension is an incurable disease but it must always be controlled so that complications do not result in death (Palmer & Williams, 2007). Compliance with treatment can be seen from the diligence of patients taking drugs according to schedule,

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drugs taken every day, and the drug running out on time. Evaluation of treatment adherence can also be seen in patient self-reports, drug numbers, pharmacy records, drug levels and treatment monitoring systems (Morisky & Munter, 2009).

The level of patient compliance is influenced by several factors consisting of education, accommodation, changes in therapeutic models, modification of environmental and social factors, increasing health professional interactions with clients, knowledge, and family support (Niven, 2002). Theoretically, a person's knowledge will determine whether he is compliant or non-compliant with treatment, and it will also lead to belief/behavior in him to obey (Mubarak, 2006).

The public health center program related to the appeal/counseling of the re-visit of hypertension sufferers to check themselves in the form of counseling can only be carried out 6x / year from 12x/year, carried out by health workers. Preliminary studies conducted by the author based on observations through the register of visits to the health center within the last three months only recorded the number of new visits with hypertension. The impact of control noncompliance will provide various complications resulting from hypertension such as kidney failure, stroke and so on (Depkes, 2009).

Based on a preliminary study of 10 patients undergoing treatment at the Simpang Tuan Health Center on December 15, 2019, it is shown that as many as 7 people did not know that hypertension should undergo regular treatment. They did not know that hypertension was an incurable disease. 6 people had a bad attitude, in which they assumed that after treatment the disease would be cured. 6 people stated that the access was not good because the road to the puskesmas was hollow and dusty. 7 people didn't get family support -- the family did not want to take the patients to the health center because they had their own busy life. 6 people said that the officer did not provide counseling about hypertension. 6 people stated that access to health services was difficult -- the road was damaged, potholes and dusty. Getting

to the Puskesmas took longer time than usual because the road was damaged.

This study aims to determine the factors associated with compliance with hypertension in undergoing treatment in the work area of Simpang Tuan Health Center

## 2. Method

The study was an analytic study using a cross sectional design. This research was conducted in the working area of Simpang Tuan Health Center from January 27 to February 07 2020. The research samples were people who suffered from hypertension in the working area of Simpang Tuan Health Center with a total of 168 people. The sampling technique was proportional random sampling technique. The research instrument was a questionnaire by conducting interviews with respondents. Data were analyzed by Univariat and Bivariate using chi square test.

## 3. Result and Discussion

The results show that 89.3% of respondents had low adherence to treatment, 44.6% had poor knowledge, 29.8% had poor attitudes, 77.4% had poor service access, 50% had poor family support, 32.7% of the role of health workers were not good (table 1)

**Table 1.** Univariate results

Variable	Frequency	Percentage
Obedience		
Low	150	89,3
Medium	18	10,7
Knowledge		
Not Good	75	44,6
Good	93	55,4
Attitude		
Not Good	50	29,8
Good	118	70,2
Service Access		
Not Good	130	77,4
Good	38	22,6
Family Support		
Not Good	84	50,0
Good	84	50,0
The Role of Health Workers		
Not Good	55	32,7
Good	113	67,3

**Table 2.** Factors related to compliance with hypertension in undergoing treatment

Variable	Undergoing Treatment				Total		p
	Low		Medium		n	%	
	n	%	n	%			
<b>Knowledge</b>							
Not Good	59	78,7	16	21,3	75	100	0,000
Good	91	97,8	2	2,2	93	100	
<b>Attitude</b>							
Not Good	48	96,0	2	4,0	50	100	0,119
Good	102	86,4	16	13,6	118	100	
<b>Service Access</b>							
Not Good	112	86,2	18	13,8	130	100	0,014
Good	38	100,0	0	0,0	38	100	
<b>Family Support</b>							
Not Good	76	90,5	8	9,5	84	100	0,803
Good	74	88,1	10	11,9	84	100	
<b>The Role of Health Workers</b>							
Not Good	52	94,5	3	5,5	55	100	0,203
Good	98	86,7	15	13,3	113	100	

Based on the results of the study, there was a significant relationship between knowledge and compliance with hypertension in undergoing treatment in the work area of Simpang Tuan Health Center with a value of  $p = 0,000$  ( $p > 0,000$ ). This shows that the better the knowledge possessed by the respondent was, the better the compliance in undergoing hypertension treatment existed

This is consistent with Lawrence Green's theory which states that submissive behavior is influenced by predisposing factors, one of which is the respondent's knowledge (Notoatmodjo, 2010). Human behavior is the result of the relationship between stimuli (stimuli) and responses (responses) received by organisms in their implementation. Knowledge is an important factor for the formation of one's actions (Notoatmodjo, 2007). Behavior based on knowledge will last more than behavior that is not based on knowledge. Knowledge is also obtained naturally and planned through the education process (Wawan & Dewi, 2010). In general, the higher a person's education is, the easier he will absorb information, so the better the knowledge possessed will be. With good knowledge, a person's behavior tends to behave in a positive direction (Notoatmodjo, 2007).

The results show that of the 75 respondents who had poor knowledge, 59 (78,7%) had low adherence in undergoing treatment. Respondents did not know that hypertension is a disease that must be controlled so it does not cause

complications such as stroke. Hypertension is controlled by taking medication regularly and checking blood pressure regularly. Because the respondent did not know this, the respondent did not regularly check blood pressure and did not regularly take antihypertensive medication.

Of 93 respondents who had good knowledge, there were 91 (97,8%) had low adherence in undergoing hypertension treatment. It was because the respondents had their own busy life such as working for a living so they did not check their blood pressure to health services. In addition, respondents also felt that there were no complaints on him so they did not check their blood pressure.

The results was obtained by the value of  $p = 0,119$  ( $p > 0,05$ ) so it can be concluded that there is no relationship between attitudes and hypertension sufferers compliance in undergoing treatment in the Simpang Tuan Health Center.

The result of the study done by Sugiarto shows that attitude really influences someone's behaviour. The better attitude someone has, the better behaviour he possesses in preventing disease.(Sugiarto, Hanafi, & Berliana, 2019)

The results of bivariate analysis show that there was no relationship between attitude and compliance with hypertension sufferers in undergoing treatment because respondents had suffered from hypertension for more than 5 years, so despite having a good attitude, they felt fed up with the treatment they were undergoing, so they would come for treatment only if they

felt any complaints. Respondents who had suffered from hypertension for more than five years had more experience. However respondents who had complied with the treatment process but didn't get satisfactory results tended to surrender and did not adhere to the treatment process they were undergoing.

The results were obtained by the value of  $p = 0,014$  ( $p < 0,05$ ) so that there was a significant relationship between access to health services with compliance with hypertension in undergoing treatment in the work area of Simpang Tuan Health Center.

The access affordability referred to in this study is seen in terms of distance, travel time and ease of transportation to reach health services. The farther the distance of the patient's home from the place of health care and the difficulty of transportation are, the more difficult for the patients to comply with the treatment.

Access that is difficult to reach by respondents (such as damaged roads) has made respondents lazy to go to health services. When it took longer time to go by motorcycle to health service and when the trip gave them pain in their body due to jerks on the motorbike, respondents would be uncomfortable to come to health services in blood pressure checks or to take antihypertensive drugs in health services.

The results was obtained by the value of  $p = 0,803$  ( $p > 0,05$ ) so that there was no significant relationship between family support and hypertension sufferers compliance in undergoing treatment in the Simpang Tuan Health Center.

The results show that there was no relationship between family support and adherence in undergoing treatment. This was because respondents talked and interacted more with their friends than with their family members. Respondents were more likely to discuss health problems with their friends than with family members, thereby inadvertently limited the support they got from family.

Based on the results of the study which was obtained with  $p$  value =  $0,203$  ( $p > 0,050$ ), it can be concluded that there was no relationship between the role of health workers with hypertension patient compliance in undergoing treatment in the Simpang Tuan Health Center area. It also shows that health workers did not play an important role in adhering to undergo treatment in patients with hypertension. The role of good / unfavorable health workers is not a parameter for complying with hypertension patients in responding to treatment.

The results of the study are in line with research conducted by Martiningsih, et al (2017) in the working area of Parit H. Husin II Public Health Center Pontianak City that there is no relationship between the role of health workers with adherence to taking antihypertensive medication in patients with hypertension ( $p = 0,649$ ) (Martiningsih, Rachmadi, & Fahdi, 2019).

The role of health workers is an activity expected by the community for a health worker who provides health services to improve the health status of the community. Health workers as people who understand the health better of both disease and health services play an important role to provide support to someone to behave healthy.

The results show that there was no relationship between the role of health workers with hypertension sufferers compliance in undergoing treatment due to other factors. Other factors that can be derived from the patient himself include religious beliefs that pushed them to stop taking medication, they felt afraid of the long-term effects of taking medication routinely so that they switched to herbal treatments which were believed by residents to reduce blood pressure, and patients' lack of awareness which will make the disease occur due to lack of discipline in taking medication. Motivation factors for treatment from the patient himself were factors of knowledge, family support, and duration of hypertension.

This study shows the results that most respondents had low adherence. This is because respondents did not know that hypertension must be controlled by regularly checking blood pressure and taking medication regularly. In accordance with the results of the study, it is shown that as many as 44,6% of respondents had poor knowledge. The low compliance in undergoing treatment was also influenced by access to health services. Access to services that are difficult to reach has made respondents lazy to go to health services. In accordance with the results of the study, it is shown that as many as 77,4% of respondents stated that access to services was not good.

#### 4. Conclusion and Sugestion

The results show that factors related to hypertension sufferers compliance in undergoing treatment were knowledge and access to health services. While attitudes, family support and the role of health workers were not related to adherence in undergoing treatment.

It is expected that the special hypertension sufferers in the working area of Simpang Tuan Health Center can regularly conduct blood pressure checks to other service facilities so that their blood pressure can be controlled.

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