FACTORS AFFECTING NON ADHERENCE WITH DRUG USE OF HYPERTENSION PATIENTS IN BANJARMASIN CITY

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Abstract

The cause of hypertension is unknown (idiopathic), but can be associated with lifestyle factors such as diet and lack of movement. Hypertension has long been known as a disease that has resulted in many factors, both external and internal factors. External factors are influenced by such as diet, exercise habits, and smoking habits. for internal factors such as gender, age, family history, and genetics. **Purpose :** The purpose of this study was to analyze the factors that influence non-adherence to drug use in hypertension patients in the city of Banjarmasin. **Method :** This research is quantitative using an observational design with a cross sectional research design with analytical descriptive method. **Results :** The results of the research obtained are known that from 50 respondents. There are 34 respondents who do not comply with the use of hypertension drugs. Variables related to non-adherence to drug use in hypertensive patients were gender (p = 0.146), level of formal education (p = 0.880), employment status (p = 0.981), family income (p = 0.203), distance from home to health services (p = 0.697), level of knowledge about hypertension management (p = 0.230), motivation to seek treatment (p = 0.015), family support (p = 0.941). **Conclusion :** The results of the research obtained and have been carried out in the people of Banjarmasin are related to the factors that influence non-compliance with non-compliance with the use of drugs for hypertension patients, namely gender, level of formal education, employment status, family income, distance from home to health services, level of knowledge about hypertension management, motivation for treatment, family support.

Keywords : Factors, Non-compliance, Drug Use of Hypertensive Patients.

Introduction

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 (Kemenkes.RI, 2014).

One billion people in the world suffer from hypertension and two-thirds of them are in low- and middle-income developing countries. It is predicted that by 2025, 29% or 1.6 billion people worldwide suffer from hypertension (World Health Organization Data, 2013). The prevalence of hypertension in Indonesia is a non-communicable disease which has increased by 8.3%, from 2013 to 25.8% then increased in 2018 to 34.1%.Patients with hypertension in South Kalimantan are the highest province in Indonesia with a prevalence of 44.1% (Riskesdas, 2018). Data from the Banjarmasin City Health Office was obtained in 2018 the number of hypertension in the city of Banjarmasin was obtained as much as 75,556 people (Banjarmasin City Health Profile 2018 Banjarmasin City Health Office 2019).

The cause of hypertension is unknown (idiopathic), but can be associated with lifestyle factors such as diet and lack of movement (Kemenkes.RI, 2014). Hypertension has long been known as a disease that has resulted in many factors, both external and internal factors. External factors are influenced by such as diet, exercise habits, and smoking habits. for internal factors such as gender, age, family history, and genetics (Sartik et al., 2017).

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. Data collection was obtained using the MMAS-8 questionnaire media.

Result And Discussion

Research for data collection was carried out in May – June 2021 in the city of Banjarmasin with the data collection method using a questionnaire (google form). The results obtained by respondents using a questionnaire (google form) are 50 respondents with a period of 4 weeks. 34 respondents who are categorized as non-compliant and 16 respondents are categorized as obedient

Univariate Analysis

Table 1. Results Characteristics of Respondents by Gender

Category Characteristics of Respondents	Sum (n)	Percentage (%)
Gender		
Woman	34	68
Man	16	32

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 (Notoatmodjo, 2010). The results of the characteristics of respondents based on gender, it is known that the characteristics of the most dominant gender respondents are women as many as 34 people (68%) and men as many as 16 people (32%). The analysis obtained from the questionnaire was that the majority of women were more than men, because the area had more women suffering from hypertension.

Table 2. Results of Characteristics of Respondents by Level of Formal Education

Category Characteristics of Respondents	Sum (n)	Percentage (%)
Formal Education Level		
Low (SD,SMP,SMA)	40	80
Height (D3,S1,S2)	10	20

Changes or actions to maintain and improve health produced by health education are based on knowledge and awareness through the learning process (Notoatmodjo, 2010). The results of the characteristics of respondents based on the level of formal education, it is known that the characteristics of the respondents with the most dominant level of formal education are 40 people (80%) low and 10 people (20%). The analysis obtained from the questionnaire has the lowest level of formal education, which is mostly higher than the level of high formal education, because the area is more dominant with low formal education.

Table 3. Results of Characteristics of Respondents based on Employment Status

Category Characteristics of Respondents	Sum (n)	Percentage (%)
Job status		
Work	22	44
Not Work	28	56

Respondents who do not work tend to be more obedient to treatment compared to respondents who work. This is because respondents who work are busier so they don't have much time to check themselves at the Puskesmas. Respondents who work also take medicine not according to doctor's recommendations because of the dense activities carried out every day so that respondents forget to take medicine (Pada et al., 2020). The results of the characteristics of respondents based on employment status, it is known that the most dominant characteristics of

respondents with employment status are not working as many as 28 people (56%) and working as many as 22 people (44%). The analysis obtained from the questionnaire does not work more because women are more dominant in sex related to employment status.

Table 4. Results of Characteristics of Respondents based on Family Income

Category Characteristics of Respondents	Sum (n)	Percentage (%)
Family Income		
Rp. <2.900.000	37	74
Rp. >2.900.000	13	26

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. the results of the characteristics of respondents based on family income, it is known that the most dominant characteristics of respondents with family income are 37 (74%) Rp. <2.900.000 and 13 (26%). The analysis obtained from the income questionnaire of Rp. <2,900,000 is more because the income of respondents in the area and has an effect on employment status and the level of formal education above.

Table 5. Results of Respondents' Characteristics based on Distance from Home to Health Services

Category Characteristics of Respondents	Sum (n)	Percentage (%)
Distance from Home to Health Services		
Near	27	54
Far	23	46

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. (Notoatmodjo, 2010). The results of the characteristics of respondents based on the distance from their homes to health services, it is known that the characteristics of respondents who are far from home to health services are 27 people (54%) close and 23 people (46%) far away. The analysis obtained from the questionnaire is close because in the area there are many health services in the Banjarmasin city area

Table 6. Results of Characteristics of Respondents based on Knowledge Levels about Hypertension Management

Category Characteristics of Respondents	Sum (n)	Percentage (%)
Level of Knowledge About Management of Hypertension		
High knowledge (understand medicine)	19	38
Low knowledge (do not understand treatment)	31	62

It was found that respondents who have knowledge about hypertension management who are in the high category tend to be more obedient to treatment compared to respondents who have low knowledge. This is because respondents who have high knowledge of hypertension management better understand how to treat hypertension properly and the dangers of not routinely controlling blood pressure so that they are more obedient in taking treatment and complying with doctor's recommendations to take medication regularly (Pada et al., 2020). The results of the characteristics of respondents based on the level of knowledge about hypertension management, it is known that the characteristics of respondents with the most dominant level of knowledge about hypertension management are low knowledge as many as 31 people (62%) and high knowledge as many as 19 people (38%). The analysis obtained from the questionnaire is that knowledge is low because people in the area lack learning about the management of hypertension.

Table 7. Results of Respondents' Characteristics based on Motivation for Treatment

Category Characteristics of Respondents	Sum (n)	Percentage (%)
Motivation for Treatment		
High	10	20
Low	40	80

Respondents who have high motivation for treatment tend to be more obedient to treatment compared to respondents who have low motivation to seek treatment. Hypertensive patients who have high motivation to always control their blood pressure will be more obedient to treatment because they are aware that controlling blood pressure is important to avoid complications (Pada et al., 2020). The results of respondents based on motivation to seek treatment, it is known that the characteristics of respondents who have the most dominant motivation to seek treatment are high as many as 40 people (80%) and low as many as 10 people (20%). The analysis obtained from the questionnaire is high motivation because every sick person wants to get well.

Table 8. Results of Characteristics of Respondents based on Family Support

Category Characteristics of Respondents	Sum (n)	Percentage (%)
Family support		
There is Support	44	88
No Support	6	12

Support from family members in patients with hypertension greatly affects the level of compliance for routine treatment, hypertension sufferers who receive family support will be more routinely treated and take medication so that their blood pressure can be controlled. Patients with hypertension who have family support tend to be more obedient to treatment compared to respondents who do not have family support (Pada et al., 2020). Based on the results of the characteristics of respondents based on family support, it is known that the most dominant characteristics of respondents with family support are 44 people (88%) and 6 (22%). The analysis obtained from the questionnaire is that there is support because the respondent's family does not want anyone to suffer illness and affect other families.

Bivariate Analysis

Table 9. Results of the relationship between sex and non-adherence to treatment in the city of Banjarmasin

No	Gender	Non-compliance with Hypertension Patients' Drug Use				Sum	
		Not obey		Obey			
		N	*%*	*N*	*%*	*N*	*%*
1	Woman	26	74.2	9	25.7	35	100
2	Man	8	53.3	7	46.6	15	100
Sum		34	68	16	32	50	100
Uji *Chi Square P-Value* = 0,146 (P-Value > 0,05)							

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 0.146 (P-Value > 0.05). This study is in accordance with research conducted by Qorry Putri Rasajati et al (2015) which showed that there was no relationship between gender and non-adherence to drug use in hypertension patients with a P-Value of 0.444 (P>0.05). In Ajeng Pujasari's research (2015) according to research that there is no significant relationship between gender and non-compliance. In terms of maintaining health, usually women pay more attention to their health than men. This is due to

the availability of time and opportunities for women to come to the puskesmas more often than men. However, women do not always have the availability of time due to busyness and work.

Table 10. Results of the relationship between the level of formal education and non-adherence to treatment in the city of Banjarmasin

No	Formal Education Level	Non-compliance with Hypertension Patients' Drug Use				Sum	
		Not obey		Obey			
		N	*%*	*N*	*%*	*N*	*%*
1	Low	27	67,5	13	32,5	40	100
2	Tall	7	70	3	30	10	100
Sum		34	68	16	32	50	100
Uji *Chi Square P-Value* = 0,880 (P-Value > 0,05)							

This study based on the results of statistical analysis using the Chi-Square test, the results showed that there was no relationship between the level of formal education and non-adherence to drug use in hypertension patients with the P-Value being 0.880 (P-Value > 0.05). This study is in accordance with research conducted by Qorry Putri Rasajati et al (2015) which showed that there was no relationship between the level of formal education and non-adherence to drug use in hypertension patients with the P-Value value of 0.232 (P>0.05). Respondents who have a high level of education or a low level of education both want to recover from their illness so that the level of education does not affect non-adherence to treatment.

Table 11. Results of the relationship between employment status and non-adherence to treatment in the city of Banjarmasin

No	Job status	Non-compliance with Hypertension Patients' Drug Use				Sum	
		Not obey		Obey			
		N	*%*	*N*	*%*	*N*	*%*
1	Work	15	68,1	7	31,8	22	100
2	Not Work	19	67,8	9	32,1	28	100
Sum		34	68	16	32	50	100
Uji *Chi Square P-Value* = 0,981 (P-Value > 0,05)							

This study based on the results of statistical analysis using the Chi-Square test, the results showed that there was no relationship between work status and non-adherence to drug use in hypertension patients with the P-Value being 0.981 (P-Value > 0.05). This study is in accordance with research conducted by Ajeng Pujasari et al (2015) which showed that there was no relationship between work status and non-adherence to drug use in hypertensive patients with a P-Value of 0.248 (P>0.05). According to the research conducted by NIti Emilina et al. (2019), it can be interpreted that work does not affect the level of compliance of respondents to obediently control treatment at the puskesmas. Based on work, respondents who work tend to be disobedient compared to patients who do not work, this is because working patients do not have time to go to health services.

Table 12. Results of the relationship between family income and non-adherence to treatment in the city of Banjarmasin

No	Family Income	Non-compliance with Hypertension Patients' Drug Use				Sum	
		Not obey		Obey			
		N	*%*	*N*	*%*	*N*	*%*
1	Rp.<2.900.000	27	72,9	10	27	37	100
2	Rp.>2.900.000	7	53,8	6	46,1	13	100
Sum		34	68	16	32	50	100
Uji *Chi Square P-Value* = 0,203 (P-Value > 0,05)							

This study is based on the results of statistical analysis using the Chi-Square test, the results show that there is no relationship between family income and non-adherence to drug use in hypertension patients with the P-Value being 0.203 (P-Value > 0.05). This study is in accordance with research conducted by Qorry Putri Rasajati et al (2015) which showed that there was no relationship between family income and non-adherence to drug use in hypertension patients with a P-value of 0.869 (P>0.05). Tisna's (2009) research agrees with this study that there is no relationship between income and the level of patient non-adherence to treatment. The low level of family income is not necessarily the cause of non-compliance, because currently people with low incomes can get treatment for free without having to pay for treatment. With a program from the government, the Social Security Administration Agency (BPJS), people with low incomes can get health services.

Table 13. Results of the relationship between distance from home to health services and non-adherence to treatment in the city of Banjarmasin

No	Distance from Home to Health Services	Non-compliance with Hypertension Patients' Drug Use				Sum	
		Not obey		Obey			
		N	*%*	*N*	*%*	*N*	*%*
1	Close	19	70,3	8	29,6	27	100
2	Far	15	65,2	8	34,7	23	100
Sum		34	68	16	32	50	100
Uji *Chi Square P-Value* = 0,697 (P-Value > 0,05)							

This study based on the results of statistical analysis using the Chi-Square test, the results showed that there was no relationship between the distance from home to health services and non-adherence to drug use in hypertension patients with the P-Value being 0.697 (P-Value > 0.05). This study is not in accordance with research conducted by Qorry Putri Rasajati et al (2015) which showed that there was a relationship between distance from home to health services and non-adherence to drug use in hypertension patients with a P-Value value of 0.036 (P<0.05). Meanwhile, in the research of Niti Emiliana et al. (2019), according to the research conducted, the condition of access to health services will not have an effect on respondents to seek treatment in health services. because respondents in the area if blood pressure is normal, the respondent does not take treatment even though the distance from home to health services is close. The distance from the house that is close to health services makes it easier for respondents to seek treatment so that they are more routinely treated.

Tabel 14. Results of the relationship between the level of knowledge about hypertension management and non-adherence to treatment in the city of Banjarmasin

No	Level of Knowledge About Management of Hypertension	Non-compliance with Hypertension Patients' Drug Use				Sum	
		Not obey		Obey			
		N	*%*	*N*	*%*	*N*	*%*
1	High Knowledge	11	57,9	8	42,1	19	100
2	Low Knowledge	23	74,1	8	25,8	31	100

Sum	34	68	16	32	50	100
Uji *Chi Square P-Value* = 0,230 (P-Value > 0,05)						

This study based on the results of statistical analysis using the Chi-Square test, the results showed that there was no relationship between the level of knowledge about hypertension management and non-adherence to drug use in hypertension patients with the P-Value being 0.230 (P-Value >0.05). This study is not in accordance with the research conducted by Qorry Putri Rasajati et al (2015) which showed that there was a relationship between the level of knowledge of hypertension management and non-adherence to the use of drugs in hypertension patients with a P-Value value of 0.000 (P <0.05). because respondents in the area lacked information about hypertension management. Respondents who have knowledge about the management of hypertension in the high category tend to be more obedient to treatment compared to respondents who have low knowledge. This is because respondents who have high knowledge of hypertension management better understand how to treat hypertension correctly and the dangers of not regularly controlling blood pressure so that they are more obedient in taking treatment.

Table 15. Results of the relationship between motivation for treatment and non-adherence to treatment in the city of Banjarmasin

No	Motivation for Treatment	Non-compliance with Hypertension Patients' Drug Use				Sum	
		Not obey		Obey			
		N	*%*	*N*	*%*	*N*	*%*
1	Low	10	100	0	0	10	100
2	Tall	24	60	16	40	40	100
Sum		34	68	16	32	50	100
Uji *Chi Square P-Value* = 0,015 (P-Value > 0,05)							

This study was based on the results of statistical analysis using the Chi-Square test. The results showed that there was no relationship between motivation for treatment regarding hypertension management and non-adherence to drug use in hypertension patients with the P-Value being 0.015 (P-Value > 0.05). This study is not in accordance with research conducted by Qorry Putri Rasajati et al (2015) which showed that there was a relationship between motivation to seek

treatment and non-adherence to drug use in hypertensive patients with a P-value of 0.000 (P<0.05). If we are still healthy and asked to perform unpleasant behavior, generally we will not do it. Because when healthy, avoiding disease is not the goal (Notoatmodjo, 2010). Respondents who have high motivation for treatment tend to be more obedient to treatment compared to respondents who have low motivation to seek treatment. Patients with hypertension who have high motivation to always control their blood pressure will be more obedient to treatment because they are aware that controlling blood pressure is important to avoid complications.

Table 16. Results of the relationship between family support and non-adherence to treatment in the city of Banjarmasin

No	Family support	Non-compliance with Hypertension Patients' Drug Use				Sum	
		Not obey		Obey			
		N	*%*	*N*	*%*	*N*	*%*
1	There is Support	30	68,1	14	31,8	44	100
2	No Support	4	66,7	2	33,3	6	100
Sum		34	68	16	32	50	100
Uji *Chi Square P-Value* = 0,941(P-Value > 0,05)							

This study is based on the results of statistical analysis using the Chi-Square test, the results show that there is no relationship between family support regarding hypertension management and non-adherence to drug use in hypertension patients with the P-Value being 0.941 (P-Value > 0.05). This study is not in accordance with research conducted by Qorry Putri Rasajati et al (2015) which showed that there was a relationship between family support and non-adherence to drug use in hypertension patients with a P-Value value of 0.000 (P<0.05). If one or several family members have health problems, it will affect other family members and other families around them (Mubarak and Chayanti, 2009). This study does not have a relationship with family support because respondents are aware of themselves for treatment.

Conclusion

This research is based on the results obtained and what has been done on the community in the city of Banjarmasin. Conducting a factor analysis of non-adherence to drug use in hypertensive patients found that there was no influence from 8 factors: gender, level of formal education,

employment status, family income, distance from home to health services, level of knowledge about hypertension management, motivation to seek treatment and family support that affect non-compliance hypertension medication and compared with 1 study from Qorry Putri Rasajati et al (2015).

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