

# ANALYSIS OF FACTORS THAT INFLUENCE ADHERENCE TO TAKING MEDICATION IN ELDERLY PEOPLE WITH HYPERTENSION IN THE WORKING AREA OF PAKPAK BHARAT DISTRICT

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## ANALYSIS OF FACTORS THAT INFLUENCE ADHERENCE TO TAKING MEDICATION IN ELDERLY PEOPLE WITH HYPERTENSION IN THE WORKING AREA OF PAKPAK BHARAT DISTRICT

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**ABSTRACT.** Hypertension is still a health problem that must be followed up, World Health Organization (WHO) data in 2022 estimates that currently the global prevalence of hypertension is 22% of the total world population. Meanwhile, the hypertension report at the Salak Health Center in 2021 was 275 cases, in 2022 there were 324 cases, in 2023 there were 397 cases. Objective research to analyze the factors that influence adherence to taking medication in elderly people with hypertension in the Working Area of the Salak Health Center, Salak District, Pakpak Bharat Regency. The research design used Analytical Survey method with Cross Sectional approach. The population in this study were all patients The population in this study were all elderly hypertensive patients in the Salak Health Center Working Area, namely 73 patients who were all made into research samples with total population techniques. Data analysis used univariate analysis, bivariate with chi-square test and multivariate with logistic regression. The results of logistic regression research show that there is an influence of knowledge  $p = 0.014$ , motivation  $p = 0.006$ , family support  $p = 0.004$  and health worker support  $p = 0.031$ . While the dominant factor influencing compliance with taking medication in elderly people with hypertension is family support  $p = 0.004$  with  $\text{Exp (B)}$  90.993. The conclusion of this study is that there is an influence of knowledge, motivation, family support, health worker support and those that do not affect the length of suffering from hypertension and affordability of access to health services. The dominant factor, namely family support, influences compliance with taking medication in elderly people with hypertension in the Salak Health Center Working Area, Salak District, Pakpak Bharat Regency. It is suggested that the Salak Health Center is expected to be taken into consideration and input for the health center to be active in field counseling activities and use social media as a promotional medium, conduct home visits to patients' homes in an effort to monitor compliance with taking medication in order to increase the acceleration of healing of hypertension in the elderly, so as to improve health status in the elderly.

**Keywords :** Knowledge, motivation, family, health worker, length of stay, affordability, medication adherence

### INTRODUCTION

Non-communicable diseases are still a global problem in Indonesian society, one of which is hypertension. Hypertension is a health problem that is quite dangerous throughout the world because hypertension is the main risk factor that leads to cardiovascular disease such as heart attack, heart failure, stroke and kidney disease, ischemic heart disease and stroke are the two main causes of death in the world. Hypertension is called the silent killer because sufferers often do not experience complaints, so sufferers do not know they suffer from hypertension(1).

Data from the World Health Organization (WHO) for 2022 estimates that currently the global prevalence of hypertension is 22% of the total world population. Of these sufferers, less than a fifth take steps to control their blood pressure. The African region has the highest prevalence of hypertension at 27%, the Eastern Mediterranean 26%, Southeast Asia is in the 3rd highest position with a prevalence of 25%, Europe 23%, the Western Pacific 19% and America 18% of the total population. In Southeast Asia, Myanmar has a prevalence of 21.5%, Vietnam 21%, Malaysia 19.6%, the Philippines 18.6%, Brunei Darussalam 17.9% and Singapore 16.1% while Indonesia 11.7%(2).

According to Basic Health Research (Riskesdas), the prevalence of hypertension in Indonesia in the population aged  $\geq 18$  years in (2022) (34.1%). South Kalimantan is the province with the highest prevalence of hypertension sufferers (44.13%), followed by West Java (39.60%) and the smallest is Papua with a prevalence of (22.22%). High blood pressure often occurs in women, with a prevalence of (36.9%) and men (31.3%)(3). In North Sumatra Province in 2022, hypertension cases reached 5.52% of the total population in North Sumatra or There were 3,200,454 people who suffered from hypertension. The highest prevalence of hypertension is Medan City, reaching 662,021 people and West Pakpak reaching 18th position, namely 3,726 people.(4).

The disease pattern in Indonesia has experienced an epidemiological transition over the last two decades, namely from infectious diseases which were initially the main burden, then began to shift to non-communicable diseases. This tendency increases and begins to threaten from a young age. The main non-communicable diseases include hypertension, diabetes mellitus, cancer and chronic obstructive pulmonary disease(5).

Efforts to realize health development in Indonesia, carried out based on the Ministry of Health's Strategic Plan 2020-2024 are: Maternal and child health, infant and toddler mortality, school age and youth, working age and old age, community nutrition, infectious diseases, non-communicable diseases, health environment, mental health and access and quality of health services. Infectious diseases in the Ministry of Health's Strategic Plan 2020-2024 stated that the priority is still focused on Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS), Pulmonary Tuberculosis (Pulmonary TB), Malaria, Dengue Fever, Influenza and Bird Flu(6).

Treatment compliance is a health behavior that is influenced by many factors. The proportion of hypertension sufferers in Indonesia, especially Pakpak Bharat Regency, is still quite high and this proportion continues to increase every year. One effort that can be made to reduce the morbidity rate of hypertension is the consumption of antihypertensive drugs, but there are still few sufferers who adhere to this treatment.(7).

Antihypertensive drugs have been proven to control the blood pressure of hypertensive sufferers within stable limits. Antihypertensive drugs play a role in reducing the incidence of complications that can occur due to unstable blood pressure in hypertensive sufferers. Success in treatment for hypertension sufferers is influenced by many factors, one of which is patient compliance in taking medication. Compliance with hypertension sufferers in taking medication can control their blood pressure in a stable condition. Low compliance is a factor inhibiting good control(8).

The success of treatment in hypertensive patients is influenced by several factors, one of which is compliance in taking medication, so that hypertensive patients can control blood pressure within normal limits. However, 50% of hypertensive patients do not comply with health workers' recommendations to take medication, which causes many hypertensive patients to be unable to control their blood pressure and this leads to patient death. Patient compliance in taking medication can be measured using various methods, one of the methods that can be used is the MMAS-8 Scale (Morisky Medication Adherence Scale) which consists of three aspects, namely the frequency of forgetting to take medication, deliberately stopping taking medication without the medical team knowing, the ability to control oneself to continue taking medication(9).

According to Lawrence Green, there are 3 factors that influence a person's compliance behavior in taking medication, including (predisposing factors) which include gender, age, employment, education, knowledge and attitudes, (enabling factors) which may arise in the availability of health facilities, insurance participation, health, and duration of illness, and (strengthening factors) which appear in motivation, family support and the role of health workers. Therefore, increased adherence is the result of interactions between the patient, the social environment, and the healthcare provider(10).

Based on reports on the number of hypertension in Salak Health Center, Salak District, Pakpak Bharat Regency It is known that the largest significant increase in hypertension is in 2021 with 275 cases, in 2022 with 324 cases, and in 2023 with 397 cases. The largest number of hypertension cases that recovered after treatment increased in 2021, namely 91 cases compared to 112 cases in 2022 and 167 cases in 2023. The largest number of hypertension treatment drop out cases occurred in 2021 with 59 cases, in 2022 there were 42 cases and the smallest case occurred in 2023 with 38 treatment drop out cases.(11).

Based on previous studies in Salak Health Center Many people are still found to be non-compliant with taking antihypertensive medication. This is caused by the respondents' low level of knowledge on how to control and consume hypertension medication properly and correctly because they are senile so they forget to take medication, the lack of motivation from the patient himself in treatment because he thinks this is his parents' disease so there is no need to consume medication regularly. There is a lack of family support to take the family to health services and the family often forgets to remind them to take hypertension medication, the family or children are busy working so they don't have time to pay attention to the family who suffers from hypertension, plus affordability of access to health services which is quite far from the patient's home, poor road access and long travel times, patients who have suffered from hypertension for a long time  $\geq 5$  years make patients bored of taking medication and controlling their health through health services. If this continues to happen, it will worsen the patient's condition and there will be a lack of support from health workers in efforts to monitor medication taking and education by health worker. patients that taking hypertension medication, which is taken for life.

Based on the explanation above, this research is important to carry out because it is still found that many hypertensive patients are not obedient or obedient in taking hypertension medication, especially the elderly because if the patient is not controlled in taking antihypertensive medication it will have a bad impact on the patient such as strokes, reducing the patient's quality of life, even if more fatally, it will cause death to the patient. The phenomenon in the field is that patients only come to the health center if they have complaints, the medicine is very easy for the patient to access, they only show a sample of the medicine to the pharmacy so that the patient does not want to come to the health center and the patient assumes that this disease is an old person's disease so there is no need to come for it. seek treatment or control at the health center.

#### RESEARCH METHODS

The research design uses quantitative methods using an analytical survey with a cross sectional study approach, which is a research design where the independent variable and dependent variable are measured and collected at the same time.(12). The population in this study were hypertensive patients who came for treatment at Salak

**Health** Center from 2023 to May 2024, there are 73 elderly hypertensive patients. The samples to be studied are: 73 elderly hypertensive patients, using total population techniques. Data analysis uses univariate, bivariate and multivariate analysis. This research was conducted in Working Area of Salak Health Center, Salak District, Pakpak Bharat Regency. This research will be conducted from January to August 2024.

**RESULTS**

**Table 1. Distribution Age, Gender and Education of Respondents in the Working Area of Salak Health Center, Salak District, Pakpak Bharat Regency**

Age	Frequency (f)	Percentage (%)
61-63 Years	37	57.0
64-66 Years	19	26.0
67-69 Years	12	16.0
70-73 Years	4	5.0
74-76 Years	1	1.0
<b>Gender</b>		
Man	28	38.4
Woman	45	61.6
<b>Education</b>		
Didn't finish elementary school/elementary school	16	21.9
Junior High School	10	13.7
Senior High School	42	57.5
Higher Education (D3, S1, S2)	5	6.8
<b>Total</b>	<b>73</b>	<b>100.0</b>

Based on table 1 shows that of the 73 respondents studied, there were 37 respondents aged 61-63 years (57.0%), 19 respondents aged 64-66 years (26.0%), 12 respondents aged 67-69 years (26.0%), 16.0%), there were 4 respondents aged 70-73 years (5.0%) and 1 respondent aged 74-76 years (1.0%). There were 28 male respondents (38.4%), and 45 female respondents (61.6%). Respondents with less than elementary school education were 16 people (21.9%), respondents with junior high school education were 10 people (13.7%), respondents with high school education were 42 people (57.5%) and respondents with college education high (D3, S1, S2) as many as 5 people (6.8%).

**Table 2. The Influence of Knowledge, Motivation, Family Support, Support from Health Workers and Affordability of Access to Health Services on Compliance with Medication in Elderly Patients Suffering from Hypertension in the Working Area of the Salak Health Center, Salak District, Pakpak Bharat Regency**

Knowledge	Medication Adherence				Total	p value
	Not obey		Obedient			
	f	%	f	%		
	f	%	f	%	f	%

Not good	40	54.8	7	9.6	47	64.4	<b>0,000</b>
Good	8	11.0	18	24.6	26	35.6	
<b>Total</b>	<b>48</b>	<b>65.8</b>	<b>25</b>	<b>34.2</b>	<b>73</b>	<b>100.0</b>	
<b>Motivation</b>	<b>1 Medication Adherence</b>				<b>Total</b>	<b>p value</b>	
	<b>Not obey</b>		<b>Obedient</b>				
	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	
Not good	43	58.9	12	16.5	55	75.3	<b>0,000</b>
Good	5	6.9	13	17.8	18	24.7	
<b>Total</b>	<b>48</b>	<b>65.8</b>	<b>25</b>	<b>34.2</b>	<b>73</b>	<b>100.0</b>	
<b>Family Support</b>	<b>1 Medication Adherence</b>				<b>Total</b>	<b>p value</b>	
	<b>Not obey</b>		<b>Obedient</b>				
	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	
Not good	47	64.4	12	16.5	59	80.8	<b>0,000</b>
Good	1	1.4	13	17.8	14	19.2	
<b>Total</b>	<b>48</b>	<b>65.8</b>	<b>25</b>	<b>34.2</b>	<b>73</b>	<b>100.0</b>	
<b>Health Worker Support</b>	<b>1 Medication Adherence</b>				<b>Total</b>	<b>p value</b>	
	<b>Not obey</b>		<b>Obedient</b>				
	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	
Not good	35	47.8	8	11.0	43	58.9	<b>0,001</b>
Good	13	17.8	17	23.3	30	41.1	
<b>Total</b>	<b>48</b>	<b>65.8</b>	<b>25</b>	<b>34.2</b>	<b>73</b>	<b>100.0</b>	
<b>Suffering from hypertension for a long time</b>	<b>Medication Adherence</b>				<b>Total</b>	<b>p value</b>	
	<b>Not obey</b>		<b>Obedient</b>				
	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	
> 5 Years	32	43.9	7	9.6	39	53.4	<b>0,002</b>
≤ 5 Years	16	21.9	18	24.6	34	46.6	
<b>Total</b>	<b>48</b>	<b>65.8</b>	<b>25</b>	<b>34.2</b>	<b>73</b>	<b>100.0</b>	
<b>Affordability of Access to Health Services</b>	<b>1 Medication Adherence</b>				<b>Total</b>	<b>p value</b>	
	<b>Not obey</b>		<b>Obedient</b>				
	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	
Not Affordable	36	49.3	6	8.2	42	57.5	<b>0,000</b>
Affordable	12	16.5	19	26.0	31	42.5	
<b>Total</b>	<b>48</b>	<b>65.8</b>	<b>25</b>	<b>34.2</b>	<b>73</b>	<b>100.0</b>	

Based on table 1.2. Based on the results of the Chi-Square analysis test<sup>6</sup> it is known that all the independent variables studied are knowledge, motivation, family support, support from health workers and affordability of access to health services which influence medication adherence in elderly patients with hypertension., because p-value < 0.05.

## DISCUSSION

### The Influence of Knowledge to Compliance with Medication Taking in Elderly Patients Suffering from Hypertension in the Working Area of Salak Health Center, Salak District, Pakpak Bharat Regency<sup>11</sup>

The results of research on the knowledge of the elderly showed that there were more elderly people who had poor knowledge, namely 47 people (64.4%). There were 26 people (35.6%) who had good knowledge. The results of the findings in the field

that there is an influence between knowledge and compliance with treatment of hypertension sufferers in the elderly, in this study can be supported based on the analysis of the question items given, showing the results that the majority of respondents do not understand that antihypertensive drugs are taken continuously over a long period of time, amounting to 64.4%. , this is caused by a lack of knowledge of the elderly because the majority of elderly people have high school education and there are still elderly people with lower middle school education, such as elementary to middle school education.

Based on research by Listiawaty, et al (2021) in Talang Babat Village, there is a relationship between knowledge and compliance with hypertension treatment (p value = 0.000), this is because respondents who have good knowledge about hypertension understand the disease they are suffering from and know how to treat hypertension correctly and The dangers are if you don't regularly control your blood pressure so you will be more compliant with treatment and comply with your doctor's recommendations to take medication regularly. Good knowledge about hypertension is what encourages respondents to undertake treatment and motivates respondents to comply with the treatment program(13).

In accordance with Green's theory, obedient behavior is influenced by predisposing factors, one of which is knowledge. Human behavior is the result of the relationship between stimuli and responses received by the organism in its implementation. Knowledge is an important factor in forming a person's actions. The knowledge that hypertension sufferers must have includes understanding hypertension, the causes of hypertension, the symptoms that often accompany it and the importance of taking regular and continuous treatment in the long term as well as knowing the dangers posed by not taking medication.(10).

According to researchers' assumptions, the level of knowledge is one of the factors that plays an important role in the level of patient compliance with drug use. When a person has a good understanding of the medications they are taking, including dosage, proper use, possible side effects, and benefits, they are more likely to adhere to the treatment plan prescribed by their doctor. Patients with a deep understanding of the medications they use tend to be more aware of the importance of complying with the instructions for use provided, thereby increasing their likelihood of using the medication according to the prescribed schedule. Conversely, a lack of understanding or limited knowledge about medications can be a barrier to patient compliance, as they may not fully understand the benefits of the prescribed medication, or not understand the proper way to take the medication. Therefore, increasing patients' knowledge about the medications they are taking may contribute to improving their compliance with the treatment plans prescribed by medical professionals. (11)

#### **Motivational Influence To Compliance with Medication Taking in Elderly Patients Suffering from Hypertension in the Working Area of Salak Health Center, Salak District, Pakpak Bharat Regency**

The results of research on motivation show that there are more elderly people with poor motivation, 55 people (75.3%) and 18 people with good motivation (24.7%). The results of the findings in the field show that motivation has a significant role in influencing the level of patient compliance with drug use. When someone feels motivated, whether by internal drives such as the desire for recovery or improvement in health conditions, or by external factors such as support from family or medical personnel, they tend to be more compliant with taking medication according to the instructions given. Internal motivation can come from a deep understanding of the

benefits the treatment will have on their health, including recovery from illness or management of medical conditions they may be experiencing. In addition, external factors such as support from those closest to them, including family or the medical team, can also play an important role in increasing patient motivation to adhere to treatment.

The research results also looked at this social support which could include reminders, emotional support, or further explanation regarding the importance of adherence to medication use. However, if patient motivation is low, perhaps due to a lack of understanding of the benefits of treatment, aversion to medication side effects, or other psychological factors, this may reduce their level of compliance. Therefore, it is important for medical personnel to motivate patients by providing clear information, emotional support, and an inspiring approach so that patients feel motivated to comply with the recommended treatment plan.

In line with research conducted by (Handayani et al., 2019) there were 10 factors studied, namely gender, latest education, occupation, length of time suffering from hypertension, participation in health insurance, level of knowledge, access to health services, family support, role of health workers. and motivation to seek treatment from these ten factors was not found to be related to treatment compliance in hypertensive patients with a value of  $p=0.010$ . Respondents who have high motivation to seek treatment tend to be more compliant with treatment compared to respondents who have low motivation to seek treatment. Hypertension sufferers who have high motivation to always control their blood pressure will be more compliant with treatment because they are aware that controlling blood pressure is important to avoid complications.(14).

The definition of motivation cannot be separated from the words need or desire. Motivation is basically a person's interaction with the particular situation they face. Motivation within a person can be generated, developed and strengthened. The stronger a person's motivation, the stronger his efforts to achieve his goals. Likewise, the more people know clearly about the goals they want to achieve, especially if the goals are considered important, the stronger their effort will be to achieve them(10).

According to the researchers' assumptions, adherence to medication in hypertensive patients is one of the important things because high blood pressure is a disease that is difficult to control, but must always be monitored to avoid complications that can cause death. High motivation in this study was influenced by encouragement from oneself and others, in this case the family, because respondents with high motivation were those who received good support from their families. High motivation is formed because of the relationship between drive, goals and the need to recover. With the need to recover, hypertensive patients will be encouraged to comply with routine treatment. Motivation must always be applied to every patient suffering from hypertension so that they can take medication more regularly and regularly control their blood pressure and patients can also maintain their diet, reduce salt consumption and for men to reduce smoking.

#### **The Effect of Family Support To Compliance with Medication Taking in Elderly Patients Suffering from Hypertension in the Working Area of Salak Health Center, Salak District, Pakpak Bharat Regency**

The results of research on family support show that there are more elderly people with poor family support, 59 people (80.8%) and 14 people with good family support (19.2%). The results of the findings in the field show that support from the family has a significant impact on the level of patient compliance in taking



medication. When patients have strong support from their families, the likelihood of complying with the treatment prescribed by the doctor is greater. Family support can manifest in various forms, such as reminders to take medications on schedule, assistance in accessing health care, and emotional support that can increase the patient's motivation to adhere to the treatment plan. When families provide positive and supportive support, patients tend to feel more motivated to adhere to regular medication use.

Research results are important in chronic or long-term medical conditions where consistent adherence to treatment is crucial. However, on the other hand, a lack of support or even resistance from the family to the prescribed treatment can be a significant obstacle in patient compliance. For example, if the family doubts or does not support the prescribed treatment, this can make the patient hesitant and reduce their motivation to comply with treatment. Therefore, the role of the family in providing support, education and positive understanding about treatment to patients is very important. Involving families in health care planning and providing them with a good understanding of the importance of medication adherence can help increase patient compliance levels.

The results of this research are in line with research by Wahyu (2021) at the Kedungjajang Community Health Center, Lumajang Regency, that there is a relationship between family support and hypertension treatment compliance (p value = 0.021). In this study, family support is a factor that should not be ignored, because Family support is a factor that has a significant contribution and is one of the strengthening factors that influence patient compliance(15).

Support from people closest to them such as family is very important for someone who is sick because the family acts as a support system as well as a motivator to help them carry out routine treatment activities such as reminding them to take medication regularly, thus encouraging patients to continue and think positively to recover from the disease. and follow the treatment measures recommended by medical personnel(16). Family support is the attitude, actions and acceptance of the family towards the sick sufferer. Family support is very necessary for a sufferer, because someone who is sick certainly needs attention from the family. The family can act as a motivator for sick family members (sufferers) thereby encouraging sufferers to continue to think positively about their illness and comply with the treatment recommended by health workers.(17).

According to researchers' assumptions, the higher the family support, the easier it will be for someone to carry out treatment according to the recommendations and directions given by health workers, and vice versa, the less family support, the more difficult it will be for someone to carry out treatment that has been recommended by health workers. Apart from that, family members who provide good support and show a good attitude towards family members who suffer from hypertension have an important role in medication adherence. The attention of family members, starting from taking them to health services, helping with treatment costs, reminding them to take medication, has been proven to be more compliant with treatment compared to hypertension sufferers who receive less attention from their family members. 11

#### **The Effect of Health Worker Support To Compliance with Medication Taking in Elderly Patients Suffering from Hypertension in the Working Area of Salak Health Center, Salak District, Pakpak Bharat Regency**

The results of research on health worker support showed that there were more elderly people with poor health worker support, 43 people (58.9%) and 30 people

(41.1%) with good health worker support. The findings in the field show that the role of health workers has a major impact on the level of patient compliance with medication use. Interactions between patients and healthcare professionals, including physicians, pharmacists, and nurses, play a crucial role in motivating and guiding patients to adhere to their treatment plans. Doctors play an important role in providing clear information and a deep understanding of treatment to patients. A good explanation from a doctor regarding drug dosage, taking schedule, benefits, and risks of side effects can help increase patient understanding and confidence in using their medication. A doctor's willingness to listen to patient complaints or questions can also strengthen a trusting patient-doctor relationship, which in turn can increase patient compliance.

Apart from doctors, the role of pharmacists is also very important. Pharmacists help in providing information regarding prescribed drugs, explaining how to use them, and providing advice or reminders to patients regarding drug use. Support provided by pharmacists can help increase patient awareness of the importance of adherence to treatment plans. Nurses also have an important role in monitoring and supporting patient compliance. Nurses can provide additional information, provide emotional support, and provide education related to treatment to patients. However, sometimes factors such as busyness, lack of time, or lack of effective communication from health workers can become obstacles in increasing patient compliance. Therefore, it is important for health professionals to provide appropriate support, information and education to patients so that they better understand and adhere to treatment plans.

The results of this study are in line with research conducted by Makatindu et al., (2021) which explains that there is a significant relationship regarding the role of health workers on compliance with taking hypertension medication. This could be due to the fact that the majority of respondents received excellent service from health workers, which led to positive behavior, namely compliance with taking medication(18).

There is good support from health workers in the form of education to increase knowledge regarding the disease, making patients obedient to treatment so that patients avoid complications which can motivate individual efforts so that hypertension patients are more caring and independent in managing their health.(19).According to Lawrence Green's theory, factors related to treatment compliance behavior include factors that strengthen or encourage (reinforcing factors), namely in the form of attitudes or behavior of health workers who support sufferers to comply with treatment.(10).

According to researchers' assumptions, health workers themselves are part of treatment, because their mere presence can provide calm, every word from health workers can be medicine for patients, because they are able to provide suggestions, therefore officers need to continue to improve their therapeutic communication skills with patients. Apart from that, the behavior of the staff who are friendly and immediately carry out patient therapy without waiting too long, as well as the patient being given an explanation about the therapy that will be given and the importance of taking medication regularly is a form of support from health workers which can influence the patient's compliance behavior in therapy.

**Effects of Suffering from Hypertension for a Long Time To Compliance with Medication Taking in Elderly Patients Suffering from Hypertension in the Working Area of Salak Health Center, Salak District, Pakpak Bharat Regency**

The results of research on the duration<sup>10</sup> of suffering from hypertension showed that there were more elderly people<sup>10</sup> with a duration of suffering from hypertension > 5 years, 39 people (53.4%) and a duration of suffering from hypertension ≤ 5 years, 34 people (46.6%). Based on findings in the field<sup>13</sup> there is an influence between the length of time suffering from hypertension and compliance with treatment of hypertension sufferers in the elderly, this is because almost the average of hypertensive patients who have suffered from hypertension for a long time have a low level of compliance with taking their medication. This is related to the side effects of the medication they experience plus the consumption of hypertension medication. The old one makes the patient bored so that the patient does not want to take the medicine and makes the patient disobedient.

These results are also in accordance with research by Sekunda, MS (2021) which explains that the length of illness affects patient compliance in undergoing treatment (OR 2.77; p = 0.002; 95% CI = 1.43- 5.36). The longer a person suffers from hypertension affects the regularity of taking antihypertensive treatment. This is because individuals already know the benefits of regular treatment where the majority of respondents have suffered from hypertension for > 3 years, behave to prevent recurrence and do not experience complications which reduce the level of patient compliance in undergoing treatment.<sup>(20)</sup>

Suffering from hypertension for a long<sup>13</sup> time will cause complications in the cardiovascular system, for example stroke, heart failure and kidney failure. The next thing is related to the medication taken, usually the doctor will add the type of medication or increase the dose slightly. The patient has been suffering from an illness for a long time but has not recovered. Psychological problems such as anxiety will also arise if the treatment process takes a long time and does not heal, this will also make a hypertension sufferer feel bored while undergoing treatment and will affect the level of compliance.<sup>(21)</sup>

According to the researchers' assumption<sup>10</sup> there is a relationship between the length of time suffering from hypertension and compliance with taking hypertension medication at the Salak Community Health Center. The longer someone suffers from hypertension, the more likely it is that they will not want to take hypertension medication without realizing that the patient lacks insight into the seriousness of their health condition. Patients who have been dealing with hypertension for a long time may be less likely to be aware of the negative consequences that may arise from not adhering to their treatment, and this can worsen their disease and even cause complications with other diseases. In addition, this assumption also includes the belief that patients who have suffered from hypertension for a long time may be less compliant with taking hypertension medications, resulting in decreased compliance.

### <sup>3</sup> Influence Affordability of Access to Health Services

Regarding Compliance with Taking Medicine in Elderly Patients Suffering from Hypertension in the Working Area of Salak Health Center, Salak District, Pakpak Bharat Regency<sup>6</sup>

The results of research on the affordability of access to health services revealed that there were more elderly people with unaffordable access to health services, as many as 42 people (57.5%) and 31 people (42.5%) with<sup>1</sup> affordable access to affordable health services. The findings in the field show that access to health services is whether it is easy or not easy for someone to reach a health service location. The

3  
results of statistical test analysis showed that there was a relationship between affordability of access to health services and compliance in undergoing hypertension treatment at the Salak Community Health Center.

Other research conducted by Karim, Dewi, and Hijriyati (2022) at Pasar Rebo Hospital, East Jakarta also showed similar results. The results of the Chi square test showed that the p value = 0.004 ( $p > 0.05$ ) which means that there is a relationship between affordability of access to health services and compliance in undergoing hypertension treatment at Pasar Rebo Hospital, East Jakarta.(22).

The factor of distance affordability or ease of getting to the destination (health facility) is very important in efforts to support someone in carrying out treatment compliance. Access affordability can be seen in terms of distance, travel time and ease of transportation to reach health services. Affordable access means that sufferers will be more compliant in undergoing treatment. The farther the patient's house is from the health service and the difficulty of transportation, the more it will be related to treatment compliance. One of the factors that influence treatment compliance is the enabling factor, which consists of the availability of health facilities, ease of access to health facilities and socio-economic and cultural conditions. The low use of health facilities such as hospitals and so on, is often blamed or caused by the factor of access to health services (both travel access and distance to health facilities). Access affordability referred to in this research is seen in terms of distance, travel time and ease of transportation to reach health services. The farther the patient's house is from the health service and the difficulty of transportation, the more it will be related to treatment compliance(23).

3  
According to researchers' assumptions, there is a relationship between affordability of access to health services and compliance with taking hypertension medication at the Salak Community Health Center. This is based on the understanding that patients who have better access to health services may find it easier to follow through on their care. Affordability of access to health services includes aspects such as the location of the health center, service costs, availability of medical personnel, language that is sufficiently understood and the habits of the population. Researchers consider that patients with easy access, adequate economic conditions, language that is easy to understand, and habits applied in a region that do not conflict will find it easier to get quality and consistent care, which can increase their compliance with hypertension medication.

## CONCLUSION

The conclusion in this research is There is knowledge, motivation, family support, support from health workers and affordability of access to health services, while the most dominant variable is family support for medication adherence in elderly patients with hypertension. Working Area of Salak Health Center, Salak District, Pakpak Bharat Regency.

## SUGGESTION

Expected to Salak Health Center This research serves as material for consideration and input for the community health center to be active in field education activities as well as using social media as a promotional medium, conducting home visits to patients' homes in an effort to monitor medication adherence to increase the acceleration of healing from hypertension. in the elderly, so that it can improve the health status of the elderly.

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