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Relationship between Family Role and Patient Motivation with Adherence to Treatment in Hypertension Patients at Binanga Health Center, Mamuju District

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ABSTRACT

Hypertension is a non-communicable disease that causes premature death globally. The prevalence of hypertension continues to increase, especially in developing countries such as Indonesia, due to unhealthy lifestyle factors. This study aims to analyze the relationship between the role of family and patient motivation with treatment compliance in hypertensive patients at Puskesmas Binanga, Mamuju District. The research design used quantitative methods with a cross-sectional approach. Data were obtained through interviews and questionnaires distributed to outpatient hypertension patients. The results showed that the role of the family had a significant effect on hypertension patients' treatment compliance. Patients receiving family support are more likely to comply with routine check-up schedules than patients whose families do not support them. In addition, patient motivation also plays an important role in determining treatment adherence. Patients with a high level of motivation are more committed to undergoing therapy and regular health control. Therefore, family support and increased patient motivation need to be considered in health interventions to improve treatment adherence and prevent complications due to hypertension.

INTRODUCTION

Hypertension is one of the causes of premature death in people in the world, and over time, the problem is increasing. WHO (World Health Organization) has estimated that by 2025, 1.5 billion people in the world will suffer from hypertension each year. According to WHO (World Health Organization), by 2020, non-communicable diseases will cause 73% of deaths and 60% of all morbidity in the world (1,2).

The West Sulawesi Provincial Health Office Data Profile shows that cases of Non-Communicable Diseases (NCDs) of Hypertension in West Sulawesi, from 6 districts, namely Majene District, Polewali Mandar, Mamasa, mamuju, Middle Mamuju, North Mamuju, in 2016 the number of people at risk (>15 years) who took blood pressure measurements in 2016 was recorded as many as 109,215 people or 20.79% Of the results of blood pressure measurements, as many as 20,389 people or 18.67% were declared hypertensive/high blood pressure (3).

Data in Mamuju Regency recorded as hypertensive patients in 2016 reached out of 29,108 who took blood pressure measurements obtained 905 people (3.11%) suffering from hypertension. (Profile of Su-Bar Health Office, 2017). Meanwhile, at the Binanga health center, the number of people with hypertension who visited to check their blood pressure in 2020 was 2,071 people, with a target of 7717 people. In 2021, as many as 4,640 people with a target of 7717 people; in 2022, as many as 7,594 people with a target of 7717 people. From January to June 2023, there were 1934 people, with an average monthly visit of 632 people (Puskesmas Binanga, 2023). Hypertension is expected to increase from year to year; this is due to lifestyle changes, consuming foods high in fat and cholesterol, smoking, and high stress (4), And by 2025, the number of people with hypertension is predicted to increase to 29% or about 1.6 billion people worldwide (5,6).

Hypertension is caused by several factors, including age, family history, gender, obesity, exercise, food consumption patterns, and unhealthy lifestyles, for example, high salt consumption, excessive food, drinking alcohol, and smoking (7). There are two ways to manage hypertension: nonpharmacological and pharmacological. Nonpharmacological methods include weight loss for

obese people, a low-salt and low-fat diet, and regular blood pressure control (5–7). Meanwhile, the pharmacological method involves giving anti-hypertensive drugs that are taken regularly or obediently during treatment (8).

In hypertension treatment therapy, patients must adhere to checkups to health services according to the applicable program for controlling and preventing hypertension according to the program from the Ministry of Health of the Republic of Indonesia, namely PTM (non-communicable diseases). Patients are said to be compliant if patients checkup every 1 month regularly to check their blood pressure (Ministry of Health, 2015). In addition, the role of the family is needed in providing support to hypertensive patients in diligently checking themselves into the health service to carry out routine blood control (9,10). The motivation of hypertensive patients affects their behavior in controlling hypertension, so we can assess their motivation based on their behavior (11).

The purpose of this study was to determine the relationship between family and patient motivation and treatment compliance in outpatient hypertension patients at the Binanga Health Center, Mamuju sub-district.

METHODE

Type of Research

This research is a quantitative study with an analytic descriptive approach. Its purpose is to determine the relationship between the role of family and patient motivation and treatment compliance in hypertension patients at Binanga Health Center.

Research Design

The research design used is cross-sectional, which means that data is collected at one specific time to examine the relationship between the independent variable (family role and patient motivation) and the dependent variable (hypertension patient treatment compliance).

Location and Time of Research

This research was conducted at Binanga Health Center, Mamuju District, West Sulawesi, and was implemented for three months in 2023.

Data Collection Technique

Data were collected using interview and questionnaire techniques. Questionnaires were given to hypertensive patients undergoing outpatient treatment at Binanga Health Center. Interviews were conducted to obtain additional information regarding patient treatment compliance and the role of the family in supporting hypertension treatment.

Data Presentation

The collected data will be presented in frequency distribution tables and descriptive and inferential statistical analyses. The relationship between variables was analyzed using the Chi-square test to see the relationship between family roles, patient motivation, and treatment compliance.

Research Instruments

The instrument used in this study was a closed questionnaire consisting of: 1). Family role questionnaire that measures emotional support, information support, instrumental support, and participation support. 2). Patient motivation questionnaire adapted from motivation theory with indicators of needs, encouragement, and incentives. 3). The treatment adherence questionnaire refers to the Morisky Medication Adherence Scale (MMAS-8), which measures patient compliance in undergoing hypertension treatment.

RESULTS AND DISCUSSION

RESULTS

A. Results of Univariate Analysis

Univariate analysis analyzes frequency distribution images, starting with respondent characteristics, independent variables, and dependent variables separately.

a. Characteristics of Family Respondents

Table 1
Frequency Distribution Based on Age, Gender, Education, and Occupation of Families Accompanying Hypertension Patients at the Binanga Health Center, Mamuju Regency

	Frequency	Persentage (%)
Age		
20-35 Years	44	67,7
36-55 Years	17	26,2
56-70 Years	4	6,1
Total	65	100
Gender		
Male	36	55,4
Fimale	29	44,6
Total	65	100
Education		
Graduated from Elementary School	1	1,5
Graduated from Junior High School	28	43,1
Graduated from High School	13	20,0
Graduated from Diploma/S1	23	35,4
Total	65	100
Jobdis		
Farmer	7	10,8
Civil Servant	8	12,3
Self-Employed	14	21,5
Housewife	36	55,4
Total	65	100

The results of the analysis in Table 1 show that most families accompanying hypertensive patients at Binanga Health Center were 20-35 years old (67.7%), most likely the patient's children or spouse. Most of the companions were male (55.4%), indicating men's involvement in supporting the treatment of their family members. In terms of education, companions with a junior high school background (43.1%) dominated, followed by senior high school (20.0%) and diploma (35.4%), which may affect their level of understanding of the importance of treatment adherence.

In terms of occupation, most companions are housewives (55.4%), which allows them to have more flexible time to support patients undergoing treatment. Other professions, such as self-employed (21.5%), civil servants (12.3%), and farmers (10.8%), also contributed as companions. These results indicate that the role of the family in supporting hypertension patients is quite strong, especially for housewives and younger family members. Optimal family support has the potential to improve patient adherence to treatment and reduce the risk of hypertension complications.

Table 2
Frequency Distribution Based on Age, Gender, Education Level, Patient Occupation, and Relationship with Hypertension Patients Treated at Binanga Health Center, Mamuju Regency.

Patient Age	Frequency	Persentage (%)

30-45 Years	16	24,6
46-55 Years	16	24,6
56-70 Years	33	50,8
Total	65	100
Gender		
Male	37	56,9
Fimale	28	43,1
Total	65	100
Education		
Graduated from Elementary School	7	10,8
Graduated from Junior High School	8	12,3
Graduated from High School	14	21,5
Graduated from Diploma/S1	36	55,4
Total	65	100
Jobdis		
Farmer	8	12,3
Civil Servant	12	18,5
Self-Employed	31	47,7
Housewife	14	21,5
Total	65	100
Relationship with patient		
Wife	16	24,6
Husband	2	3,1
Child	43	66,2
Brother	4	6,2
Total	65	100

The results of the analysis in Table 2 show that the majority of hypertensive patients who were treated at the Binanga Health Center were aged 56-70 years (50.8%), indicating that hypertension is more common in the elderly age group. In terms of gender, hypertensive patients were dominated by men (56.9%), indicating that men are more susceptible or more active in checking their blood pressure. In terms of education, most patients had a Bachelor's/S1 education level (55.4%), indicating that patients with higher education tend to be more aware of the importance of treatment.

Regarding employment, most patients were self-employed (47.7%), followed by housewives (21.5%), civil servants (18.5%), and farmers (12.3%). The dominant self-employed profession indicates that patients with flexible jobs have more opportunities to access health services. Regarding family relationships, most patient companions are children (66.2%), indicating that children are important in ensuring parental compliance with treatment. These data confirm that family support, especially from children and partners, can increase patient compliance in managing hypertension and prevent further complications.

b. Characteristics of Research Variables

Tabel 3

Distribution of family roles, patient motivation, and treatment compliance in hypertension patients at the Binanga Health Center, Mamuju Regency, in 2023

Family role	Frequecy	Persentage (%)

Poor Good	4 61	6,2 93,8
Total	65	100,0
Patient motivation		
Fair Good	6 59	9,2 90,8
Total	65	100,0
Compliance		
Non-adherent Adherent	4 61	6,2% 93,8%
Total	65	100,0

The analysis results in Table 3 show that the majority of families of hypertension patients have a good role (93.8%), indicating high family involvement in supporting patient treatment. Good family support can help patients access health services, remind them to have regular check-ups, and motivate them to undergo therapy. In addition, patient motivation is also high (90.8%), indicating that most patients have a strong drive to undergo treatment in a disciplined manner.

Regarding treatment compliance, most patients (93.8%) are compliant in undergoing hypertension therapy. This high compliance is likely influenced by good family support and patient motivation. Conversely, patients who are not compliant (6.2%) may face obstacles such as a lack of support or understanding of their illness. These results confirm that the role of the family and patient motivation are key factors in increasing compliance with hypertension treatment.

B. Analysis Bivariate

Bivariate analysis, using the SPSS program, assessed the relationship between the two variables, with a significance limit of $\alpha = 0.05$.

a. Relationship between Family Role and Treatment Compliance of Hypertension Patients

Table 4

The Relationship between Family Roles and Treatment Compliance of Hypertension Patients Undergoing Treatment at the Binanga Health Center, Mamuju Regency

Family role	**Medication adherence**						X^2 *(p)*
	Non-adherent		**Adherent**		**Jumlah**		
	F	%	F	%		%	
Poor	4	100,0	0	0,0	4	100,0	65,000
Good	0	0,0	61	100,0	0	100,0	(0,000)
Total	4	6,2	61	93,8	65	100,0	

The analysis results in Table 4 show a significant relationship between the role of the family and compliance with the treatment of hypertension patients at the Binanga Health Center. All patients with good family support (93.8%) showed compliance in treatment, while patients with less family support (6.2%) were all non-compliant. The Fisher's Exact Test produced a p-value = 0.000 (<0.05), meaning this relationship is statistically significant. These results confirm that family support plays an important role in increasing patient compliance with hypertension treatment, so family-based interventions need to be strengthened to prevent further complications.

b. Relationship between Patient Motivation and Treatment Compliance of Hypertension Patients

Table 5

Relationship between Patient Motivation and Treatment Compliance of Hypertension Patients Undergoing Treatment at the Binanga Health Center, Mamuju Regency.

Patient Adherence Motivation	Medication adherence						X^2 (p)
	Non adherent		Adherent		Jumlah		
	F	%	F	%		%	
Poor	4	66,7	2	33,3	6	100,0	41,913
Good	0	0,0	59	100,0	0	100,0	(0,000)
Total	4	6,2	61	93,8	65	100,0	

The analysis results in Table 5, the Relationship between Patient Motivation and Treatment Compliance of Hypertension Patients, show a significant relationship between patient motivation and treatment compliance. All patients with good motivation (100%) are compliant in undergoing treatment, while patients with less motivation (66.7%) tend to be non-compliant. The Fisher's Exact Test produces a p-value = 0.000 (<0.05), indicating that this relationship is statistically significant. These results confirm that the higher the patient's motivation, the more likely they are to comply with treatment, so motivation-enhancing interventions need to be carried out to support the success of hypertension therapy.

DISCUSSION

Hypertension is a non-communicable disease that is a major cause of global morbidity and mortality. Data from WHO (2018) shows that the prevalence of hypertension globally reached 22.1%, with the rate continuing to increase every year. In Indonesia, according to Riskesdas (12), the prevalence of hypertension increased from 25.8% in 2013 to 34.1% in 2018. The main factors contributing to the increase in hypertension prevalence include unhealthy lifestyles, lack of physical activity, and low adherence to treatment (13). Patient compliance in undergoing hypertension therapy is strongly influenced by various factors, one of which is family support. Previous studies have shown that family support improves patient adherence to hypertension treatment (14,15)

The role of the family in supporting hypertension patients can take the form of emotional, informational, instrumental, and participatory support (16,17). Emotional support from family can increase patient motivation in maintaining health and undergoing routine therapy (18). Information support in the form of education about hypertension and the benefits of treatment adherence can help patients understand the importance of regular blood pressure control (19,20). In addition, instrumental support, such as assisting patients in accessing health services and providing healthy foods based on the hypertension diet, also improves patient compliance (21,22).

Previous research also shows that patients who get support from their families have a higher adherence level than patients who lack family support (23). Apart from the role of family, patient motivation is also an important factor in determining treatment adherence. Motivation can come from within the patient (intrinsic motivation) or the surrounding environment (extrinsic motivation). Patients with high motivation are more likely to be disciplined in taking antihypertensive drugs and undergoing routine health controls (13).

According to Maslow's theory, the health need is one of the main driving factors that motivate individuals to act (Maslow, 1987) (24). Strong motivation in undergoing treatment can reduce the risk of hypertension complications, such as heart disease, stroke, and kidney failure (25). Therefore, health workers also play a role in increasing patient motivation by educating hypertensive patients about the benefits of treatment adherence and providing psychological encouragement.

The results of research at the Binanga Health Center show a significant relationship between family and patient motivation in treatment compliance in hypertensive patients. Patients who get family support are more likely to carry out regular blood pressure control and comply with medical recommendations than patients who do not. This is in line with the research of Pratiwi et al. (2020), which states that hypertensive patients with good family support have a higher level of compliance than patients who do not have family support. In addition, patients with high motivation are more committed to undergoing hypertension therapy compared to patients who have low motivation (19,23). Therefore, hypertension management programs must implement family-based interventions and increase patient motivation.

Based on the results of this study, it can be concluded that increasing the role of family and patient motivation is important in improving treatment adherence in hypertensive patients. Health intervention programs that involve families in the care of hypertensive patients can be an effective strategy to improve patient adherence to treatment. In addition, health workers need to provide more intensive education to patients and their families about the importance of compliance in undergoing hypertension therapy to prevent more serious complications. Efforts to increase patient motivation can also be made through psychological approaches and social support from the surrounding environment. Thus, a multidisciplinary approach involving families, health workers, and the community can be a solution to improving hypertension patient compliance and reducing complications due to hypertension in Indonesia.

CONCLUSION

This study shows a significant relationship between family and patient motivation and treatment compliance in hypertension patients at Binanga Health Center. Patients who get family support are more likely to comply with control schedules and medical therapy compared to patients who lack support. Family support in the form of emotional, informational, instrumental, and participation proved to play an important role in improving patient adherence to treatment.

In addition, patient motivation is also a major factor in determining treatment compliance. Patients with a high level of motivation are more disciplined in undergoing therapy and conducting regular blood pressure checks. Motivation can come from within the patient and the surrounding environment, including health workers and family. Therefore, increased health education, family involvement in care, and motivation-based interventions must be implemented to improve patient adherence to hypertension treatment. With increased patient adherence to treatment, the risk of hypertension complications such as stroke and heart disease can be reduced. Collaborative strategies between patients, families, and health professionals are needed for more effective and sustainable management of hypertension.

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