



The Relationship Between Self-Efficacy and Family Support with Motivation of Hypertension Patients in Compliance of Medical Nutrition Therapy

Dian Isti Angraini^{1*}  and Wiwi Febriani² 

^{1,2} Lampung University, Bandar Lampung City, Indonesia

*riditie@gmail.com

Abstract. The prevalence of hypertension has increased over time. Patient motivation in complying with medical nutrition therapy is an important factor in the treatment and prevention of complications. Self-efficacy and family support can increase patient motivation. The aim of this research is to determine the relationship between self-efficacy and family support on the motivation of hypertension patients in complying with medical nutrition therapy. This research is an analytical observational study with a cross sectional approach. This research was conducted from April to October 2023. The research sample was 100 hypertensive patients in the working area of the Kedaton Public Health Center, Bandar Lampung City. Samples were taken using a consecutive sampling technique that met the inclusion and exclusion criteria. Data on self-efficacy, family support and motivation were taken using a validated questionnaire. Data were analyzed using chi square. The research results showed that 50% of hypertensive patients had high motivation in complying with medical nutrition therapy, 38% had high self-efficacy and 21% had good family support. Self-efficacy and family support are related to the motivation of hypertensive patients in complying with medical nutrition therapy ($p=0.039$; $p=0.027$). High motivation in compliance with medical nutritional therapy for hypertensive patients is very necessary in efforts to control blood pressure in order to prevent complications. Self-efficacy and family support play an important role in increasing compliance with medical nutrition therapy in hypertensive patients.

Keywords: Compliance with medical nutrition therapy, Family support, Hypertension, Motivation, Self-efficacy.

INTRODUCTION

Hypertension is a major health problem in the world. Although this disease is not contagious, it is deadly if not controlled. This hypertension also attacks the health of the elderly and even every year cases of hypertension are increasing [1]. The results of the 2023 Indonesian Health Survey data, the prevalence of hypertension in Indonesia is still high at 29.2%, and in Lampung province at 28.3%. The results of the study based

on the age characteristics of hypertension patients are 55-64 years old at 49.5%, 65-74 years old at 57.8% and at the age of 75 and over by 64% [2].

Hypertension can be caused or associated with lifestyle factors by consuming high cholesterol, high salt foods, lack of exercise and also cannot be separated from genetic factors. Management of hypertension patients is by controlling blood pressure to normal, improving quality of life and preventing complications [3]. Hypertension is called a silent killer disease because hypertension does not have typical symptoms but can cause complications in other diseases. Complications if hypertension sufferers do not undergo treatment can cause damage to several organs, such as the kidneys, heart and brain [4].

The existing condition of the level of compliance of hypertension patients in Indonesia to seek treatment and control their health is still very low and even tends to be non-compliant in taking medication because they feel bored because the level of healing achieved is not as expected [5]. Non-adherence to antihypertensive medications is a major cause of poorly controlled hypertension and almost 50% to 70% of patients adhere poorly to their prescribed treatment [6].

The majority of compliance in taking medication in hypertension patients in Indonesia as a whole does not reach 65% [7]. The problem of non-compliance in taking medication can occur in sufferers of diseases that require long-term treatment such as hypertension. Compliance in treatment, also known as medication compliance, will only be effective if they comply with the provisions in taking medication. If a patient is compliant in using medication, it will affect the success of therapy [8]. If there is non-compliance in taking medication, it can have a very big negative effect, such as the emergence of further complications that affect the welfare of hypertension patients. The impact that occurs if hypertension patients are not compliant in taking medication will increase morbidity, mortality, and treatment costs [9].

Efforts that can be made to reduce the risk of complications and control blood pressure in hypertensive patients are to adopt a healthy lifestyle such as exercise, regulate diet and control blood pressure. Compliance with treatment including medical nutritional treatment is essential in this effort. In order for this effort to be achieved, it requires strong motivation in managing hypertension [10].

Motivation is an important part as a determinant of healthy behavior. Motivation becomes the power to move people to behave and participate in activities to achieve their goals. The existence of motivation will increase the desire and interest to carry out activities so that it is called a source of strength towards the right direction to realize the desired goals [11]. There are 2 factors that encourage blood pressure control, that was intrinsic factors in the form of motivation from within a person and external factors influenced by other people or the environment [12]. Hypertensive patients will be encouraged to comply with undergoing blood pressure control because of the motivation or desire to recover. If the patient's motivation is low, it is likely to affect self-care management not running well [13].

The motivation of hypertensive patients in managing their disease can be influenced by self-efficacy and family support [14]. Self-efficacy is the belief to carry out certain actions in order to achieve the desired goals. Self-efficacy has two parts, that were self-efficacy and expected outcomes. Self-efficacy can develop confidence in an

individual's ability to overcome health problems. The desired outcome is that a person believes they can get positive health outcomes from the health behaviors that have been carried out [15]. Self-efficacy also leads to a person's motivation and belief in their ability to overcome health problems, all of which are the most important requirements for changing the behavior of hypertension patients [16].

Good self-efficacy is significantly associated with medication adherence and low-salt diet. High levels of self-efficacy enable hypertensive patients to live a healthy lifestyle to minimize complications and improve quality of life, while patients with low self-efficacy generally do not care about a healthy lifestyle [17].

Family as the most important support system needed by the elderly to overcome high blood pressure. Family is very important and needed to maintain health and increase the enthusiasm of the elderly to receive treatment. Family support also includes four types, namely emotional, informational, instrumental, and assessment support [14].

The results of the study on the relationship between family support and the degree of hypertension in hypertensive patients at the Ranomuut Health Center in Manado City showed that 55.9% of respondents had higher family support, and 44% of respondents had low family support. Based on these data, the majority of families provide good support in providing care for family members suffering from high blood pressure [18]. Study on hypertension patients in Silo Public Health Centre Jember Indonesia showed self-efficacy results of 76.9% in the good category of 70 patients. As many as 23.1% of patients had poor self-efficacy [19].

One of the therapies for hypertension patients is medical nutrition therapy. Compliance with medical nutrition therapy in hypertension patients affects blood pressure control and prevention of complications [20]. Compliance with medical nutrition therapy in hypertension patients requires strong motivation, and is influenced by many factors including self-efficacy and family support [21]. The aim of this research is to determine the relationship between self-efficacy and family support on the motivation of hypertension patients in complying with medical nutrition therapy, which has not been widely done.

SUBJECT AND METHOD

This research is an observational analytic study with a cross-sectional research design. The study was conducted at the working area of Kedaton Public Health Centers in Bandar Lampung City, Indonesia, from April to October 2023. The population in this study were hypertension patients in Lampung Province. Based on the results of the sample calculation, the minimum number of samples that must be met were 100 hypertension patients in Kedaton Public Health Centers, Bandar Lampung City. The sample size calculation uses the sample size formula for unpaired categorical comparative analytics with a 95% confidence value, the power of the test is 80%. Sampling was done by the consecutive sampling method.

The inclusion criteria were hypertension patients and willing to take part in the research, and aged were 35-59 years old. The exclusion criteria were having a history of the others cardiovascular diseases and kidney diseases.

The independent variables are self efficacy and family support, and the dependent variable is motivation of hypertension patients in compliance of medical nutrition therapy. Data on self-efficacy, family support and motivation towards compliance with medical nutrition therapy in hypertensive patients were assessed based on a validated questionnaire.

Data collection was carried out by researchers with the help of 4 enumerators who had been given previous guidance and training. The data was analyzed with a significant degree of 95% ($p < 0.05$) secara univariat dan bivariat menggunakan chi square. This research was carried out after obtaining a research ethical clearance letter from the Ethics Committee of the Faculty of Medicine, the University of Lampung with number 2912/UN26.18/PP.05.02.00/2023.

RESULTS

The results of the study showed that hypertensive patients who have low motivation for nutrition therapy compliance were 50 people (50%) and high motivation were 50 people (50%). Self-efficacy in the low category was 62 people (62%) and high was 38 people (38%). Family support in the poor category was 79 people (79%) and good was 21 people (21%).

Table 1. Frequency Distribution of Research Variables

Variables	Amount (f)	Percentage (%)
Motivation for Nutrition Therapy Compliance		
a. Low	50	50
b. High	50	50
Self Efficacy		
a. Low	62	62
b. High	38	38
Family Support		
a. Poor	79	79
b. Good	21	21

The study results showed that hypertensive patients who had low self-efficacy and low motivation to comply with medical nutrition therapy (58.1%) were higher than hypertensive patients who had high self-efficacy and low motivation to comply with medical nutrition therapy (36.8%). Self-efficacy was related to the motivation of hypertensive patients towards compliance with medical nutrition therapy ($p = 0.039$). Low self-efficacy was a risk factor for low motivation to comply with medical nutrition therapy in hypertensive patients with $OR = 2.3$ (95% CI: 1.03-5.44), which means that hypertensive patients who had low self-efficacy would be 2.3 times more at risk of having low motivation towards compliance with medical nutrition therapy compared to hypertensive patients with high self-efficacy.

The study results showed that hypertensive patients who had poor family support and low motivation to comply with medical nutrition therapy (55.7%) were higher compared to hypertensive patients who had good family support and low motivation to comply with medical nutrition therapy (28.6%). Family support was related to the motivation of hypertensive patients towards compliance with medical nutrition therapy ($p=0.027$). Poor of family support was a risk factor for low motivation to comply with medical nutrition therapy in hypertensive patients with $OR=3.1$ (95% CI: 1.10-8.94), which means that hypertensive patients who had poor family support would be at 3.1 times higher risk of having low motivation towards compliance with medical nutrition therapy compared to hypertensive patients with good family support.

Table 2. Relationship between Self-Efficacy and Family Support with Motivation of Hypertension Patients to Comply with Medical Nutrition Therapy

Variables	Low Motivation		High Motivation		p value	OR (95% CI)
	f	%	f	%		
Self efficacy					0.039*	2.3
a. Low	36	58.1	26	41.9		(1.03-5.44)
b. High	14	36.8	24	63.2		
Family Support					0.027*	3.1
a. Poor	44	55.7	35	44.3		(1.10-8.94)
b. Good	6	28.6	15	71.4		

DISCUSSION

Dietary compliance is compliance with food and drinks consumed by hypertension patients every day to maintain health, accelerate the healing process and control blood pressure so that it is always stable [22]. Ways to improve compliance can be through influencing factors, one of which is from the patient's factor (internal), consisting of motivation, self-control, self-efficacy, seeking information about treatment, increasing self-monitoring, and from the medical personnel's perspective consisting of improving the communication skills of doctors, providing clear information to patients about their illness and how to treat it, providing social support, behavioral approaches [23].

Motivation is an intrinsic factor or motivator that comes from within a person to enthusiastically undergo hypertension control. Motivation is a condition that is realized by respondents to manage hypertension such as routine health checks and maintaining diet. Motivation is a condition that encourages or causes someone to do an act that is done consciously. This motivation often occurs because someone is experiencing emotional changes [21].

The motivation of hypertensive patients in controlling blood pressure is the desire or drive of a person to carry out the task of carrying out activities in controlling blood pressure and undergoing treatment. The purpose of controlling and treating blood pressure is to keep blood pressure stable so as to avoid symptoms and complications that may arise. Having a high motivation to obtain healing will increase compliance

with medical nutrition therapy so that blood pressure can be controlled, this shows evidence of a desire to recover and have a better quality of life [13], [24].

The results of this study prove that self-efficacy or self-confidence has an impact on the motivation of hypertensive patients to comply with medical nutrition therapy. High self-efficacy can increase the enthusiasm of hypertensive patients to comply with medical nutrition therapy by arranging an appropriate diet, while hypertensive patients with low self-efficacy have less enthusiasm to comply with medical nutrition therapy by arranging an appropriate diet [17].

Good self-efficacy will increase the confidence of hypertensive patients in taking various preventive measures to control blood pressure, including medical nutrition therapy, so that it will prevent complications. Self-efficacy includes intrinsic motivation, which is motivation from within itself, generally from behavior that can satisfy the needs of making humans feel satisfied [16].

Beliefs about self-efficacy forms the basis of human motivation and well-being. Self-efficacy also determines how a person feels, thinks, and motivates himself, to behave well. Self-efficacy considered as the most prominent predictor of changes in health behavior such as compliance with medical nutrition therapy in patients with chronic diseases such as hypertension [16], [25].

Where patients who have a low level of self-efficacy are caused by lack of support or attention from family, lack of information obtained about the disease and lack of awareness in maintaining a healthy lifestyle. There are still many patients who are still hesitant about their confidence to behave in a healthy way so that it can reduce their self-efficacy. While respondents who have a high level of efficacy are because respondents maintain a diet, implement a healthy lifestyle and routinely control blood pressure [26].

Respondents who have a low level of motivation in controlling blood pressure are due to a lack of awareness in maintaining a healthy lifestyle and exercising regularly. While respondents with a high level of motivation in controlling blood pressure are because respondents prioritize a healthy lifestyle so that it encourages hypertensive patients to routinely control their blood pressure in increasing their ability to maintain health. Self-efficacy theory is a branch of cognitive theory that explains that self-efficacy is a person's belief towards the ability to control one's own functions and one's environment [27].

The results of the study showed that family support had an impact on patient motivation to comply with medical nutrition therapy. Families with high levels of support showed that hypertensive patients were increasingly motivated to comply with medical nutrition therapy, while families with low levels of support made hypertensive patients less motivated to comply with medical nutrition therapy [3].

Based on the interview results, it was found that hypertensive patients received good family support, family members always took care of hypertensive patients at home, reminded them about eating behavior according to the recommendations of doctors or nutritionists, did physical activities and took medication regularly [28].

The form of family support for hypertension patients in the form of instrumental support is real and specific assistance provided by the family to facilitate the performance of daily activities and care for hypertension patients. The family can act

as a provider of advice needed for patient care at home. The family plays a role in providing emotional support for affection, empathy support, love, trust, and respect. Where through this type of support, someone who encounters a problem feels that they are not carrying their own burden. Assessment support, family members take steps to provide feedback, direction, and resolve problems faced by the patient [29].

Family members regularly take hypertensive patients to check their blood pressure once a month. In addition to caring for patients, family members also play a role in providing information about health behaviors that patients should do, starting from reminding them to routinely check their blood pressure, reminding them about bad habits such as not eating high-fat and high-salt foods, and reminding them to take their medication regularly. Because the support from the family that patients receive is very good, it motivates them to comply with hypertension treatment including medical nutrition therapy [28].

CONCLUSION

Controlling blood pressure in hypertensive patients is very important, to prevent the progression and complications of this disease. High motivation in compliance with medical nutritional therapy for hypertensive patients is very necessary in efforts to control blood pressure in order to prevent complications. Self-efficacy and family support play an important role in increasing compliance with medical nutrition therapy in hypertensive patients.

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