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THE RELATIONSHIP BETWEEN SELF-EFFICACY AND FAMILY SUPPORT WITH HYPERTENSION TREATMENT ADHERENCE OF ELDERLY

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ABSTRACT

Hypertension is a degenerative disease that increasing in its prevalence. Hypertension requires a long enough time to its treatment, even if there are no symptoms the patients should continue taking medication. So, patients need to obey to take medication. Adherence to taking medication correlated with self-efficacy and family support. This research aims to determine the relationship between self-efficacy and family support in hypertension treatment adherence of the elderly at Widasari Health Center, Indramayu Regency. The research design is a cross-sectional study. The sample of this research was 78 elderly. The data analysis used univariate to explain independent variables such as self-efficacy and family support, the dependent variable is hypertension treatment adherence, while the bivariate was used to determine the relationship between independent variables and the dependent variable. Dependent variable using the chi-square statistical test. The result of this research showed that 61.5% of the elderly had high self-efficacy criteria, 71.8% of the elderly received their family support, and 60.3% of the elderly obey to hypertension treatment adherence. The chi-square statistical test showed that there was a relationship between self-efficacy and family support with hypertension treatment adherence and also there is a relationship between self-efficacy and the level of adherence to taking medication in people with hypertension. It is recommended to increase the elderly self-efficacy by being able to communicate with fellow elderly who are undergoing hypertension treatment and now have reduced symptoms due to treatment adherence. Nurses should be able to provide health promotion about the importance of self-efficacy and family support in increasing compliance for the elderly undergoing hypertension treatment.

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1. INTRODUCTION

Hypertension is a degenerative disease that increasing in its prevalence along with time and the increasing rate of population growth. Degenerative disease is a chronic disease that affects productivity and quality of life. Chronic disease has a close relationship with increasing age and long-term management. The World Health Organization states that hypertension is one of the causes of premature death worldwide, an estimated 1.13 billion people have hypertension, and 1 out of 5 is controlled. Of 972 million people with hypertension, 333 million are in developed countries and 639 million are in developing countries, including Indonesia. The number of people with hypertension continues to increase every year, it is estimated that by 2025 there will be 1.5 billion people suffering from hypertension and it is estimated that every year 9.4 million people will die cause of hypertension and its complications. The prevalence of hypertension in Africa is 46% over the age of 25 years old, in Southeast Asia as much as 36%, and in America as much as 35% the incidence of hypertension. Based on Basic Health Research (Riskesdas 2018) the prevalence of hypertension in Indonesia is 34.1%. It increased compared to the prevalence of hypertension in 2013 Riskesdas of 25.8%. It is estimated that only 1/3 of hypertension cases in Indonesia are diagnosed (Michishita et al., 2017a).

Hypertension, a chronic medical condition characterized by persistently elevated blood pressure levels, stands as a global health concern with profound implications for the aging population. Among the elderly, hypertension presents a particularly complex challenge due to the interplay of various factors, including age-related physiological changes and the presence of multiple comorbidities. The successful management of hypertension is contingent upon not only effective medical interventions but also the adherence of elderly individuals to prescribed treatment regimens. In this context, two crucial elements emerge as potential determinants of treatment adherence: self-efficacy and family support (Phuchum & Darmawati, 2022). This manuscript will explore the intricate relationship between self-efficacy, the belief in one's ability to manage their hypertension, and family support, which encompasses the emotional and practical assistance provided by family members, and their impact on the treatment adherence of elderly individuals living with hypertension.

As the global population continues to age, the prevalence of hypertension among the elderly is on the rise, contributing to increased healthcare costs and a higher burden of cardiovascular diseases. The significance of hypertension treatment adherence cannot be overstated, as it directly influences the control of blood pressure levels and, consequently, the risk of hypertension-related complications such as stroke, heart disease, and renal dysfunction (Benson et al., 2017). However, elderly individuals face unique challenges that can hinder their ability to adhere to prescribed hypertension treatments, including complex medication regimens, potential side effects, and cognitive impairments associated with aging.

Self-efficacy, a central concept in Bandura's Social Cognitive Theory, plays a pivotal role in determining an individual's motivation and ability to adhere to recommended health behaviors (Darmawati et al., 2019). In the context of hypertension management, self-efficacy refers to an individual's confidence in their ability to monitor their blood pressure, adhere to medication schedules, make dietary and lifestyle changes, and engage in self-care practices. A strong sense of

self-efficacy can empower elderly individuals to take control of their health, while low self-efficacy may result in a lack of motivation and engagement in their hypertension management.

On the other hand, the family unit, a fundamental source of social support, can significantly influence an elderly individual's capacity to adhere to hypertension treatment. Family support encompasses a wide range of emotional, informational, and instrumental assistance provided by family members, including spouses, children, and siblings. The involvement of family in an elderly individual's hypertension care can have a profound impact on their treatment adherence. Family members can offer reminders for medication, encourage healthy lifestyle changes, provide transportation to medical appointments, and offer emotional support, all of which are essential components of effective hypertension management (Darmawati & Dulgani, 2019).

Adherence is a form of human behavior that occurs by an interaction between health workers and patients so the patients agreed and know all the consequences. (Dr. Isdairi, 2021) Adherence is supported by self-efficacy and self-confidence, and patients' family support. This is in accordance with Kendu Yovia Mardiana's research which there is a significant relationship between self-efficacy and the level of adherence to taking medication of hypertension patients at Dinoyo Health Center, Malang City (Qodir, 2021). Likewise the research of Siti Arifah Rohmayani and Agustina Rahmawati (2018) states that there is a relationship between family support and medication adherence in elderly with hypertension (Rohmayani, 2019) . The instruments used in this study have been declared valid and reliable where the cronbach's alpha value is > 0.60 .

This manuscript delves into the intricate interplay between self-efficacy and family support, aiming to shed light on how these two factors influence the treatment adherence of elderly individuals living with hypertension. By understanding this relationship more comprehensively, healthcare providers and policymakers can develop targeted interventions and support systems that enhance the quality of care for the elderly population, ultimately improving hypertension management outcomes and the overall well-being of our aging society.

2. METHODS

Research Design

The research design is quantitative and used a cross-sectional approach. This research was conducted in the area of the Widasari Public Health Center, Indramayu Regency. The types of data collected are primary data and secondary data. Primary data was obtained directly from respondents while secondary data was obtained from Widasari Health Center, Indramayu Regency. The instruments used in this research were informed by consent sheets and questionnaires that contained statements related to self-efficacy, family support, and adherence of the elderly undergoing hypertension treatment. This instrument has been declared valid and reliable with a Cronbach alpha value of $0.86 >$ (greater) than 0.60 . The data analysis used in this research was univariate. Independent variables in this research are self-efficacy and family support, meanwhile dependent variable of this research is hypertension treatment adherence, while bivariable analysis is used to determine the relationship between the independent variables and the dependent variable using the chi-square test. There is a relationship between the independent variable (self-efficacy) and (family support) towards the dependent variable

(hypertension treatment adherence) if the $p\text{-value} \leq \alpha$ (0.05), meanwhile there is no relationship between the independent variable with the dependent variable if the $p\text{-value} \geq \alpha$ (0.05).

The data collected was conducted from July – August 2022. The location was adjusted to Puskesmas level, a commitment of the head of Puskesmas, meaning that the results of this study are highly expected for strategic planning, especially in the management of hypertensive patients and the number of elderly visiting. Widasari Health Center was chosen as the research location because of the level 1 (good) health center and the largest of elderly with hypertension surrounding 3 health centers, such as Kiajar Wetan Health Center, Sindang Health Center, and Jatibarang Health Center. The population of this research was elderly who suffer from hypertension as many as 78. The sample of this research used a total sampling, this is because the average of the population is less than 100 a month.

The data used in this research are primary and secondary. Primary data was collected directly from the results of filling out self-efficacy questionnaires, family support, and the level of hypertension treatment adherence. Secondary data was obtained from the September 2022 Monthly Report of Widasari Health Center, Indramayu Regency.

Self-efficacy

Self-efficacy is the belief that exists in the elderly about their ability to take action, especially in this case hypertension treatment adherence. The level of self-efficacy will be revealed by using a self-efficacy scale that will be compiled by researchers based on the aspects of self-efficacy proposed by Bandura, namely aspects of cognition, aspects of motivation, aspects of affection, and aspects of selection. The higher score obtained indicates the higher the self-efficacy, meanwhile, the lower score obtained indicates the lower self-efficacy. By using an ordinal scale, the high score if the score is ≥ 39 , and the low score if the score is ≤ 39 .

Family Support

Family Support is an action and acceptance of the family towards its family members which is manifested in the form of emotional support, appreciation support, instrumental support, and informative support. The family support variable in this research was measured by a family support questionnaire using an ordinal scale, which is a high score of family support if the score is ≥ 103.9 and a low score of family support if the score is < 103.9 .

Hypertension Treatment Adherence

Hypertension treatment adherence is a behavior of hypertensive patients who have been diagnosed by Widasari Public Health Center doctor hypertension treatment adherence using an ordinal scale, which a high score of to be obedient if the score is ≥ 6.8 and a low score of to be disobedient if the score is < 6.8 .

Data Analysis Technique

1. Instrument Test

In this research, the instruments were generated from Yovia's (2021) and Siti's (2018) research on hypertension. The cronbach alpha value is > 0.60 for this instrument.

2. Data Analysis

This research used statistical descriptive analysis to provide an overview using a frequency table. Bivariate analysis for the relationship between two variables used the chi-square test.

3. RESULT

Univariate Analysis

Univariate analysis for self-efficacy showed the majority of respondents have a high self-efficacy (61.5%), the majority of respondents have good family support 71.8%), and also have a good score for hypertension treatment adherence (60.3%).

Bivariate Analysis

1. The Relationship between Self-Efficacy and Hypertension Treatment Adherence of Elderly

Bivariate analysis for the relationship between self-efficacy and hypertension treatment adherence of the elderly can be shown in the table below:

Table 1. The Relationship between Self-Efficacy and Hypertension Treatment Adherence of Elderly

Self Efficacy	Compliance with Hypertension Treatment in the Elderly				Total		p Value
	Not Obey		Obey		n	%	
	n	%	n	%			
Low	26	86,7	4	13,3	30	38,5	0,000
High	5	10,4	43	89,6	48	61,5	

Based on Table 1 above, of the respondents who had low self-efficacy, 86.7% were disobedient in hypertension treatment, and of the respondents who had high self-efficacy, 89.6% were adhering to hypertension treatment. The results of the Chi-Square statistical test obtained a p-value of $0.000 < \alpha (0.05)$ which means that H_0 was rejected and H_a was accepted.

2. The Relationship between Family Support and Hypertension Treatment Adherence of Elderly

Bivariate analysis for the relationship between family support and hypertension treatment adherence of the elderly can be shown in the table below:

Table 2. The Relationship between Family Support and Hypertension Treatment Adherence of Elderly

Family Support	Hypertension Treatment Adherence of Elderly				Total		p Value
	Not Obey		Obey		n	%	
	n	%	n	%			
No Support	17	77,3	5	22,7	22	38,2	0,000
With Support	9	16,1	47	83,9	56	71,8	

Based on Table 2 above, of the respondents who have no support from their families, 77.3% were disobedient in hypertension treatment, and of the respondents who have support from their families, 83.9% were adhering to hypertension treatment. The results of the Chi-Square statistical test obtained a p-value of $0.000 < \alpha (0.05)$ which means that H_0 was rejected and H_a was accepted.

4. DISCUSSION

Self-Efficacy or self-confidence needs to be owned by the elderly, especially if they are undergoing hypertension treatment. Hypertension treatment which takes a long enough time and will be taken for life certainly needs the adherence of the elderly. This is related to the statement of the Director of P2PTM stating that hypertension treatment is a long-term treatment and the medication should be taken regularly even if there are no symptoms (Kemenkes, 2018).

The results of this research most of the respondents have a high self-efficacy (61.5%). This shows that the hypertension elderly at Widasari Health Center have high self-confidence, and this certainly has an impact on the adherence of the elderly in undergoing hypertension treatment. Considering that there are still 38.5% of elderly who have low efficacy, it should be improved by learning from the experiences of fellow elderly, so that their self-efficacy increases and they are obeyed in undergoing hypertension treatment (Darmawati & Kurniawan, 2021).

Treatment of hypertension requires patience and a long enough time, for this reason, family support is needed so the family members of hypertension elderly remain to obey in undergoing hypertension treatment. The results of this research showed that most of the respondents (71.8%) had family support. This is shown that hypertension elderly families at Widasari Health Center support the hypertension treatment to their family members, this certainly has an impact on the adherence of the elderly in undergoing hypertension treatment (Rohmayani, 2019).

Family support is related to financial support, and information support regarding the benefits of routine and periodic treatment so that the elderly become adherent to the hypertension treatment, family support is also beneficial for health and well-being in hypertension treatment. This is in line with Setiadi's statement in Daziah and Rahayu (2020) stated that family support is beneficial for health and well-being which function simultaneously. Meanwhile, there are still 38.2% of the family have no support for hypertension treatment, for this reason, it is necessary to increase the understanding of the family about the benefits of support for the elderly undergoing hypertension treatment (Daziah & Rahayu, 2020).

Hypertension treatment is essential in controlling elderly hypertension. Hypertension treatment aims to reduce mortality and morbidity due to hypertension by maintaining blood pressure while preventing the risk of other cardiovascular diseases. However, in reality, the treatment adherence of the elderly is still low compared to young patients. Nonadherence to medication is a worldwide problem in chronic disease therapy. The results of this research conducted in 2016 in Hongkong stated that hypertension treatment adherence is 44.1%, while in Indonesia conducted by basic health research in 2018 stated that hypertension treatment adherence is 54.4% (Kemenkes, 2018).

The results of this research most of the respondents (60.3%) is adherence to hypertension treatment. This is shown that hypertension elderly are obedient and according to the rules to continue taking hypertension medication even though their symptoms have disappeared. This obedient, elderly certainly has an impact on their behavior in treatment, when the medicine runs out, the person concerned immediately goes to the health center or doctor to get medicine, this will certainly run smoothly if also got supported by their family, especially financial support, considering that the elderly mostly assisted financially by their families. Meanwhile, considering that there are still 39.7% of elderly people who are nonadherence in treating hypertension, it is

feared that the disease will not heal and even become severe because hypertension medicine is taken irregularly. This is in accordance with the research of Massa, K., & Manafe, L. A. that most of the elderly in Wangurer Village adhere to taking hypertension medication (Massa & Manafe, 2021) and is supported by research by Sari, that as many as 69% of the elderly are obedient in taking hypertension medication. Meanwhile, Anwar K and Masnina's research stated that most adherence to taking antihypertensive medication in elderly people with hypertension in the working area of the Samarinda Air Putih Health Center was in the moderate category (Anwar & Masnina, 2019).

Self-efficacy is also related to self-confidence that they can carry out actions. Efficacy is self-assessment in taking action whether it is good or bad, right or wrong, able or unable to complete what is given (Ariesti, 2018). The Chi-Square statistical test obtained p-value is $0.000 < \alpha (0.05)$ which means that H_0 was rejected and H_a was accepted. It means that there is a significant relationship between self-efficacy and hypertension treatment adherence in the elderly. This is different from the research by Elia Ariesti (2018) stated that there is no relationship between self-efficacy and hypertension treatment adherence at Bareng Community Health Center in Malang City and in accordance with Tantri Puspita's research (2019) stated that there is a relationship between self-efficacy and hypertension diet adherence (Ariesti, 2018) supported by Sitompul's research (2018) stated that there is an effect of health self-efficacy on hypertension treatment adherence (Dewi et al., 2018) strengthened by Kendu's et al. (2021). There is a relationship between self-efficacy and the level of adherence to taking medication for hypertension (Qodir, 2021)

Adherence is the level of the patient carrying out the treatment and behavior suggested by their doctor or other people. In undergoing long-term treatment, patient adherence is highly demanded to know the patient's attitude and behavior towards the treatment program that has been given by health workers. Poor adherence to treatment may result in adverse side effects. Treatment adherence with chronic diseases in developed countries is only 50%, while in developing countries the figure will be lower. Adherence is influenced by the existence of five dimensions that are interrelated with one another. The five dimensions are the patient factor, therapeutic factor, health system factor, environmental factor, and socioeconomic factor (Daziah & Rahayu, 2020).

Self-efficacy is a self-estimation of his ability to carry out and organize the actions needed to solve a problem or achieve certain goals. Self-efficacy is one of the key factors in exercising personal control, including control over one's health condition. Individuals who have a high level of self-efficacy will have the confidence to recover. In addition, self-efficacy also contributes to providing benefits to the level of motivation and performance achievement. Individuals with good self-efficacy will focus on the opportunities that exist in their life, even in environments with limited opportunities they believe that problems and obstacles can be overcome (Puspita et al., 2019).

Family support is greatly important in hypertension treatment by always reminding patients to take medicine, deep understanding of patients, and encouraging them to be adherence. Family support in this research was encourage patients to comply with taking their medication, in this case taking hypertension treatment, encouraging successful treatment, and not avoiding patients because of their illness. If family support is not given to remind them to continue regular treatment,

hypertension treatment failure can occur (Purnawinadi et al., 2020).

The results showed that the Chi-Square of the statistical test had a p-value of $0.000 < \alpha$ (0.05) which means that H_0 was rejected and H_a was accepted. It means that there is a significant relationship between self-efficacy and hypertension treatment adherence in the elderly. This is in accordance with Purnawinadi's research, which stated that there is a relationship between family support and hypertension treatment adherence (Purnawinadi et al., 2020) supported by research by Agustika Rokhma Dewi, Joko Wiyono, Erlisa Candrawati, stated that there is a relationship between family support and hypertension treatment adherence at Dau Health Center in Malang Regency (Dewi et al., 2018) was reinforced by the research of Hanum et al., stated that there is a relationship between knowledge, motivation, and family support and hypertension treatment adherence at Peukan Health Center Aceh Besar District Agency (Michishita et al., 2017b)

5. CONCLUSION

Based on the results of the study, the elderly at the Widasari Health Center, Widasari District, Indramayu Regency had high self-efficacy, received good family support, and adhered to hypertension treatment. There was a relationship between self-efficacy and family support with adherence to hypertension treatment. Suggestions from this research for the elderly is to increase their self-efficacy by being able to communicate with fellow elderly people who are undergoing hypertension treatment to reduce their symptoms due to adherence a hypertension treatment. Families should always provide support to their family members and the Widasari community health center should be made specific strategies for the elderly to obey in undergoing hypertension treatment.

6. CONFLICT OF INTEREST

The authors have no conflicts of interest to declare

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