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The Relationship Between Family Support And Adherence To Taking Antihypertensive Drugs In Hypertensive Patients In The Marwah Room Of Pku Muhammadiyah Hospital Yogyakarta

Erita Rakhmawati[1] Suryani[2], Suri Salmiyati[3]

[1]Student of RPL Nursing Program, Aisyiyah University, Yogyakarta
[2]Thesis Supervisor of RPL Nursing Program Aisyiyah University Yogyakarta
3. Thesis Examiner of RPL Nursing Programme Aisyiyah University Yogyakarta
rita.erita123@gmail.com , suryani@unisayogya.ac.id , surisalmiyati@unisayogya.ac.id

Abstract

Background: Hypertension is one of the most common chronic diseases in the community and is a major risk factor for various serious complications such as stroke, kidney failure, and heart disease. One of the challenges in handling hypertension is the low patient compliance with long-term treatment, which can be influenced by psychosocial aspects, including family support. This study aims to analyze the relationship between the level of family support and compliance to taking antihypertensive medication in hospitalized patients in the Marwah Ward of PKU Muhammadiyah Hospital Yogyakarta. Methods: This study employed a descriptive correlational design with a cross-sectional approach. The sample consisted of 36 respondents selected by accidental sampling. Data collection was carried out using two structured questionnaires that measured the level of family support and obedience to taking medication.**Analysis**: Data analysis performed was the Spearman Rank statistical test to determine the level of relationship between the two variables. Results: The results showed that most of the respondents with high family support had good compliance to treatment (57.7%), while the majority of respondents with low support showed a low level of compliance (83.3%).**Conclusion**: The results of the analysis showed a significant positive relationship between
family support and adherence to taking antihypertensive medication (p<0.001; r=0.553), which means that the higher the family support, the better the level of patient compliance. This finding emphasizes the importance of the family's role in supporting the treatment of hypertensive patients and opens opportunities for nurses and health workers to involve family members in compliance improvement strategies, especially in inpatient settings. This study also provides a basis for educational interventions and a holistic approach that emphasizes family participation in chronic disease management.

Keywords: Hypertension, Family Support, Medication Compliance, Hospitalization,

Introduction

Hypertension is a major health problem found in many countries, including Indonesia. This disease is often referred to as a "silent killer" because it often does not show any obvious symptoms but can cause serious complications. Hypertension is a condition where blood pressure in the blood vessels increases chronically (Rhosifanni, 2016). Uncontrolled hypertension will cause various complications, such as myocardial infarction, coronary heart disease, congestive heart failure, if it affects the brain, stroke, hypertensive encephalopathy, and chronic kidney failure. Hypertension has a high prevalence rate in the general population. The prevalence of hypertension worldwide according to the WHO in 2023 reached approximately 1.3 billion adults, meaning that approximately 1 in 3 adults worldwide had hypertension or 16.25% of people worldwide had hypertension. This figure is likely to increase to 29.2% in 2025 (Anggreni et al., 2023). Based on the 2023 Indonesian Health Survey (SKI), 30.8% of Indonesians aged 18 and over suffer from hypertension, and

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the prevalence increases with age. The majority of sufferers are unaware that they have hypertension, and medication adherence is low, with only around 30-40% of sufferers regularly taking medication. Data from the 2018 Basic Health Research (Riskesdas) places Yogyakarta in third place with the number of hypertension cases in Indonesia based on diagnosis or medication history, which is 12.9%. Hypertension is the third leading cause of death in Indonesia.

The government has given serious attention to the prevention and management of hypertension by establishing the Directorate of Non-Communicable Disease Control based on the Minister of Health Regulation No. 1575 of 2005 in implementing the prevention and management of heart and blood vessel diseases. The public considers hypertension as a disease that is easily cured, does not require serious treatment, hypertension is synonymous with anger, taking too much hypertension medication will cause kidney disease, the older the blood pressure will be higher, these assumptions make hypertension often ignored and do not need to be serious in treating it (Hermawan, 2014)

Although medications are widely available, only about 25% of hypertensive patients have their blood pressure controlled (Anugrah et al., 2020). The high number of hypertensive patients experiencing relapses and requiring inpatient care indicates a lack of medication adherence. Medication adherence is crucial in patient care because it can reduce relapses or recurrent hypertension and is essential for achieving controlled blood pressure (Supiyati & Sinaga, 2021).

Family involvement is essential for hypertension sufferers, including motivation, information, emotional, and financial support (Unger et al., 2020). Previous research has shown that family support can improve adherence to treatment for hypertension sufferers, and it can also improve their comfort and physical endurance (Kusuma, 2023). Other research also indicates that family support contributes to adherence to antihypertensive medication at the Sidorejo Kidul Community Health Center in Salatiga (Akta et al., 2024).

Research methods

This study is a descriptive correlation study with a cross-sectional research design, the population in this study were all patients in the Marwah room of PKU Muhammadiyah Hospital Yogyakarta, which were in accordance with the inclusion criteria, sampling with accidental sampling techniques totaling 36 respondents. The instruments used in this study were a family support questionnaire with 25 Likert scale questions and a Morisky standard medication adherence questionnaire (MMAS), with 8 questions, this instrument adopted from previous studies with validity test values with validity test results obtained r count 0.481-0.789 and > r table 0.444 and reliability test using the KR-20 formula obtained a family support reliability coefficient value with a value of 0.920 the value is >0.90 then it can be concluded that the question is valid. The medication adherence variable used the MMAS-8 questionnaire sourced from (Morisky & DiMatteo, 2011) and has been tested for validity by (Hartawan, 2023) obtained r results of 0.309-0.660 > r table 0.273 and the reliability test of the medication adherence questionnaire obtained a Cronbach's alpha value.0.782 ≥ 0.60 then it can be concluded that the results are reliable.

This research was conducted in December 2024 - June 2025. This research includes several stages, from the proposal preparation stage, managing research ethics permits,

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managing research permits, data collection, data processing, to analysis using statistical analysis. The variables of this research consist of independent variables, namely family support and dependent variables, namely compliance, the statistical test in this study is the Spearman Rank test to determine the relationship between family support and medication adherence in patients, This research has received Ethical Clearance approval from the Ethics Committee of PKU Muhammadiyah Yogyakarta Hospital with number 00217 / KT.7.4 / VI / 2025

RESEARCH RESULT

This study was conducted on hypertensive patients who were undergoing inpatient treatment in the Marwah room of PKU Muhammadiyah Hospital Yogyakarta with a total of 36 respondents, with the results of the frequency distribution data of respondent characteristics as follows:

Table 1. Frequency Distribution of Respondent Characteristics

Respondent Characteristics		Frequency(n)	Percentage(%)
Age (Years)	17-25	2	5.6
	26-35	3	13.9
	36-45	16	44.4
	46-55	9	25
	56-65	4	11.1
	>66	2	5.6
Amount		36	100
Gender	man	12	33.3
	Woman	24	66.7
Amount		36	100
Education	Elementary School	6	17.1
	JUNIOR HIGH SCHOOL	3	8.3
	SENIOR HIGH SCHOOL	16	45.7
	D3	5	15.3
	S1	5	15.3
	S2	1	2.9
Amount		36	100

Source: Primary Data 2025

The results of the study based on characteristics are shown in Table 1. Where the respondents numbered 36 people with the majority of ages in the 36-45 years age group as many as 16 people (44.4%), the gender of the respondents was mostly women as many as 24 people (66.7%), the last education of the majority of respondents was high school graduates as many as 16 people (44.4%).

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Table 2. Frequency distribution of Family Support

Category	Frequency	Percentage (%)
Good	26	72.2
Enough	4	11.1
Not enough	6	16.7
Total	36	100

source: primary data 2025

Based on Table 2. the results of the frequency distribution are known that most respondents have a high level of family support, namely as many as 26 people (72.2%), while there are 6 respondents (16.7%) in the low support category and only 4 respondents received moderate support (11.1%). These results indicate that the majority of respondents have optimal family support in dealing with hypertension conditions, this high level of family support can play an important role in increasing adherence to treatment, implementing a healthy lifestyle and motivation to control blood pressure (Frianto et al., 2023), on the other hand, the presence of respondents with low support is an important note for further educational interventions.

Table 3. Frequency Distribution of Compliance Levels.

Category	Frequency(n)	Percentage (%)
Tall	17	47.2
Currently	12	33.3
Low	7	19.4
Total	36	100

Source: primary data 2025

Based on Table 3. The results of this study indicate that some respondents have a high level of compliance in consuming antihypertensive drugs, namely 17 people (47.2%), as many as 12 respondents (33.3%) are in the moderate compliance category, while 7 respondents (19.4%) are included in the low category, this finding indicates that more than half of the respondents (80.5%) showed a sufficient to good level of compliance, this is a positive indicator that most respondents are aware of the importance of regular hypertension treatment, however, the existence of respondents with low compliance remains an important concern because it risks worsening health conditions and increasing complications. This is in line with previous theories and studies which state that social support from the family plays an important role in increasing patient motivation to comply with treatment (Kusuma, 2023), Family support can be in the form of reminders of medication schedules, emotional support, and assistance in obtaining needed medications, families can provide consistent attention and assistance that can create an environment that supports healthy behaviors including adherence to treatment. Thus, nursing interventions should also involve family members in the education and decision-making process, especially in the management of chronic diseases such as hypertension

Table 4. Spearman Rank Correlation Test of Family Support and Compliance

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			Support	**Compliance**
Spearman rank	Support	*Correlation coefficient*	1000	,553
		Sig (2-tailed)		<0.001
		N		36
	compliance	*Correlation coefficient*	,553	1000
		Sig (2-tailed)	<0.001	
		N	36	

Spearman Rank Test

Based on the results of the analysis using the Spearman rank test, it was found that there was a significant relationship between family support and medication adherence. The test results showed a correlation coefficient value of p = 0.553 with a significance value of p <0.001. The correlation coefficient value of 0.553 is included in the category of moderate and positive relationships, indicating that the higher the family support received, the better the level of patient compliance in taking medication regularly. A very small significance value (<0.001) indicates that this relationship is very significant. This finding is in line with previous theories and research stating that social support, especially from family, plays an important role in shaping individual health behaviors, including adherence to medical therapy. Family support can provide motivation, reminders, and a sense of security and comfort for patients, which ultimately increases compliance in undergoing treatment (Lumajang et al., 2025).

Table 5. Cross-tabulation analysis between family support and medication adherence

Variables		Compliance with taking hypertension medication							*P value*
		Tall		Currently		Low			
		f	%	f	%	f	%	total	
Family support	Good	10	38.5	11	42.3	5	19.2	100	
	Enough	4	100	0	0.0	0	0.0	100	<0.001
	Low	3	50	1	16.7	2	33.3	100	
Total		17		12		7		36	

Descriptive crosstabulation

The results of the cross-tabulation analysis in Table 5 show a significant relationship between family support and adherence to hypertension medication (p value <0.001). Respondents with good family support mostly showed high adherence (10 respondents (38.5%) and moderate (11 respondents (42.3%), while those with low adherence were 5 respondents (19.2%). Furthermore, all respondents with sufficient family support (4 respondents (100%) were in the high adherence category, indicating a positive influence of sufficient family support on adherence. Meanwhile, respondents with low family support were mostly at a high adherence level (3 respondents (50%), followed by moderate adherence (1 respondent (16.7%) and low adherence (2 respondents (33.3%),

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these results indicate that the better the family support, the higher the level of adherence to hypertension medication.

DISCUSSION

1. Respondent Characteristics

Based on the results of the distribution of the age characteristics of respondents in the age range of 36-45 years, namely 16 people (44.4%), this age range is included in the productive age, but the risk of hypertension begins to increase with age. According to the Indonesian Ministry of Health (2019), the prevalence of hypertension increases in the age group above 35 years caused by changes in blood vessel structure and decreased arterial elasticity. In terms of gender, the majority of respondents were women, as many as 24 people (66.7%), this study shows that women, especially after menopause, have an increased risk of hypertension due to hormonal changes that affect blood pressure (Siregar et al., 2021). In addition, women are more open in reporting health problems and more frequent health checks, so that more cases of hypertension are found in this group in public health surveys.

Based on education level, the majority of respondents had a high school education (16 people) and a high school education (45.7%). Education influences the level of knowledge about hypertension. Respondents with a secondary education tend to have sufficient knowledge but still require further education regarding hypertension. Research by Rahmawati (2020) in the Journal of Public Health states that low levels of education are associated with low levels of hypertension awareness and control. Therefore, the characteristics of respondents in this study indicate that the majority were at risk for hypertension, predominantly female, and had a secondary education. This condition is highly relevant considering that these three factors are often associated with the prevalence and level of compliance with hypertension management.

2. Family Support

Based on the results of the study of 36 respondents, family support for hypertension patients in the Marwah inpatient room of PKU Muhammadiyah Hospital Yogyakarta was mostly in the good category, as many as 26 respondents (72.2%). From these results, it can be seen that the majority of respondents have good family support. This shows that the family is still functioning to pay attention, appreciate, and love family members, support from the family makes sufferers not feel burdened by the disease they suffer from (Irnawati, 2016). The results showed that 4 respondents had sufficient family support (11.1%) and 6 respondents had insufficient family support (16.7%). This shows that the lack of support from the family can be influenced by the busyness of family members themselves in carrying out daily activities so that they cannot help or support patients optimally.

Family support also plays a key role in managing chronic illness. Families play a crucial role in encouraging and reinforcing patient behavior (Efendi 2017). Besides busy schedules, several other factors can influence the level of family support for patients, including education level, family knowledge about the disease, emotional relationships between family members, and economic conditions. Families with a good level of

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education and knowledge tend to be better able to understand the patient's needs and the importance of their role in the care process. Harmonious family relationships also increase empathy and concern, resulting in more optimal support. Conversely, limited economic conditions can be a barrier to providing support, both materially and emotionally, as families must divide their focus between meeting basic needs.

3. **Medication Compliance**

Based on the results of the study, it was found that out of 36 respondents, adherence to taking medication for hypertension patients in the Marwah room of PKU Muhammadiyah Hospital Yogyakarta was mostly in the good compliance category with 17 respondents (47.2%), moderate compliance with 12 respondents (33.3%) and low compliance with 7 respondents (19.4%). This shows that most respondents have had compliance in the high category with 17 respondents and moderate category with 12 respondents, while for low compliance with 7 respondents. Moderate compliance is the first stage of behavioral change where at this stage it still needs supervision.

Compliance in a person can emerge when someone has the will to achieve a desired outcome. Patient compliance can be defined as a patient's adherence to the treatment regimen they are required to undergo. Medication adherence is crucial for a patient's rapid recovery from their illness.

Based on the results of this study, 24 respondents (66.7%) were women, this can affect the level of respondent compliance, in terms of health, women pay more attention to health compared to men (Puspita, 2016). Age also affects a person's compliance such as awareness of consequences, responsibilities and life experiences, adults will be more mature and tend to be more obedient because they understand the importance of rules and consequences. Education also affects a person's compliance, educated people have a better understanding of compliance. Awareness of the importance of rules. Education can also provide wider access to information, so that a person can understand the rules and procedures better.

4. **The Relationship Between Family Support and Medication Compliance**

Based on the results of the analysis of family support for taking medication using the Spearman Rank test, the results showed a p value of 0.001 which is smaller than 0.05, so it was concluded that H0 was rejected and H1 was accepted, meaning there was a relationship between family support and adherence to taking antihypertensive medication in inpatients at Marwah Hospital PKU Muhammadiyah Yogyakarta. According to the researcher's assumption, the better the family support provided, the better the adherence to taking medication for hypertensive patients. The results of this study are in line with research (Dewi, 2018) that there is a relationship between family support and adherence to medication in hypertensive patients, because with family support, patients will feel cared for and supervised in undergoing treatment. This is in accordance with research conducted (Ahda, 2016) that there is a relationship between family support and adherence to taking medication for hypertensive patients with a positive and statistically significant relationship. There were respondents who had good family support but adherence to taking medication in the moderate category as many as 10 respondents (38.5%) adherence

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to taking medication in the low category as many as 1 respondent (3.8%). These findings reinforce the understanding that family support is not only emotionally influential, but also practically in encouraging patients to remain compliant with therapy. This support includes reminders for medication schedules, assistance to health facilities, and good communication between patients and families so that it can increase patient responsibility for their own health.

5. **Conclusion**

The results of the study showed that there was a significant relationship between family support and adherence to taking medication in hypertension sufferers, as evidenced by the Spearman rank test with a p value <0.001. In addition, the results of the Spearman correlation test showed a coefficient value of 0.553 which indicated that the relationship was positive and statistically significant, meaning that the higher the family support given to hypertension sufferers, the higher their level of adherence in taking medication regularly.

SUGGESTION

Based on the research results obtained, the following points are recommended:

1. For Health Workers

It is recommended to increase family involvement in the patient education process, especially regarding the importance of medication compliance in hypertensive patients.

2. For the patient's family

The family can continue to provide moral support and consistent supervision of the patient's medication schedule to improve the results of medical therapy.

3. For hospital institutions

There needs to be a regular education or counseling program about the role of family support in managing chronic diseases such as hypertension which can be carried out in inpatient rooms or outpatient clinics.

4. For further researchers

It is hoped that further researchers can expand the variables by considering other factors such as the patient's level of knowledge, internal motivation, or support from health workers and using longitudinal methods to see the long-term effects of family support on therapy adherence.

6. **Author Contribution**

each author's specific contribution to the research and writing of the article.

Erita acted as the principal researcher who designed, implemented, and analyzed the research results, as well as drafting the initial draft of the scientific article.

Suryani provided guidance and direction throughout the research process, including in the preparation of the methodology, data analysis, and editing of the article substance.

Suri Salmiyati contributed as a research reviewer by providing critical input on the validity and reliability of the findings, and assisting in refining the article until it was ready for publication.

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