

# The Relationship between Family Support and Knowledge on Medication Compliance in Hypertension Patients at the Pante Ceureumen Health Center, West Aceh Regency

Devi Febrianti<sup>1</sup>, Fitria<sup>2</sup>

<sup>1,2</sup>Department of Pharmacy, Faculty of Health Sciences, Universitas Ubudiyah Indonesia, Banda Aceh, Indonesia.

Corresponding Author: Fitria

DOI: <https://doi.org/10.52403/ijrr.20250911>

## ABSTRACT

One of the main challenges in managing hypertension is patient non-compliance with prescribed medication. Various factors influence treatment adherence, including the level of family support and the patient's understanding of their condition. Family support plays a crucial role in encouraging consistent treatment adherence, while adequate knowledge enables patients to manage symptoms and prevent complications. This study aimed to examine the relationship between family support and patient knowledge with medication adherence among individuals with hypertension at the Pante Ceureumen Health Center. Utilizing an analytical cross-sectional design, the study involved a population of 396 hypertensive patients who visited the health center between June and December 2024, with 80 participants selected through probability sampling. Data were collected in February 2025 using structured questionnaires and analyzed using univariate and bivariate methods, including the Chi-Square test. The findings revealed a significant correlation between both family support and knowledge with medication adherence, indicated by a p-value of 0.000. Based on these results, it is recommended that the Pante Ceureumen Health Center

enhance its health education efforts regarding the importance of consistent use of antihypertensive medication to support better patient outcomes.

**Keywords:** Family support, knowledge, medication compliance, hypertension patients

## INTRODUCTION

Hypertension sufferers worldwide continue to increase every year. One of the leading causes of premature death worldwide is hypertension, a non-communicable condition. According to estimates from the World Health Organization (WHO), 22% of people worldwide suffer from hypertension. Less than a fifth of these patients make an effort to manage their blood pressure, with 27%, the highest frequency of hypertension is seen in the African region, with a frequency of 25% of the total population, Southeast Asia ranks third. WHO also estimates that 1 in 4 women worldwide suffer from hypertension (Gaol & Simbolon, 2022). In Indonesia, the percentage of the population reporting hypertension in the previous month increased by 32.36% in 2019, 30.96% in 2020, and 27.23% in 2021, and 29.94 in 2022 (Central Bureau of Statistics, 2022). Long-term and persistent hypertension is the main cause of chronic

kidney failure and can lead to complications such as heart attacks, strokes, and heart failure (Suciana et al., 2024). Based on the Basic Health Research (2021), measurements taken at the age of  $\geq 18$  years showed the prevalence of hypertension in Indonesia was 25.8%. The highest percentage of hypertension sufferers was in Bangka Belitung Province (30.9%), while the lowest percentage was in West Papua Province (16.8%), although Aceh is not an area with high cases of hypertension, cases of hypertension in Aceh cannot be underestimated. According to the Aceh Riskesdas (2022), this is because in Aceh in 2018 the prevalence of hypertension in the population aged 18 years and over was 26.45%; Bener Meriah had the highest prevalence (36.75%), while Simeulue had the lowest prevalence (18.47%). Age 35–44 years (26.88%), 45–54 years (38.05%), and 55–64 years (47.11%) are the age groups most affected by hypertension.

Managing chronic conditions like hypertension requires lifelong treatment (Juniarti et al., 2023). One of the key factors influencing the effectiveness of hypertension therapy is patient adherence to prescribed medication. The goal of hypertension management is to maintain blood pressure within a stable range and prevent complications associated with the condition. When patients fail to follow their medication regimen, it can lead to uncontrolled blood pressure, significantly increasing the risk of serious health issues such as coronary artery disease, heart failure, stroke, and kidney damage (Purnawinadi & Lintang, 2020).

One of the challenges in handling hypertensive patients is patient non-compliance with drug therapy, to manage hypertension effectively, compliance is very important, to maintain ideal blood pressure targets, hypertensive patients need to take medication and monitor blood pressure regularly, because it can help reduce the incidence of stroke by 30-40%, myocardial infarction by 20-25%, and congestive heart failure by more than 50%, pharmacological therapy is considered a significant

contributor to reducing overall hypertension-related morbidity and mortality (Lukitaningtyas & Cahyono, 2023).

Family support is one of the factors that influences hypertension treatment. The closest person who can provide encouragement and help hypertension sufferers to be more confident and have good physical endurance so that they can be pioneers in managing their condition is the family. This family support is very important so that sufferers can focus more on their illness (Sulistiyana, 2019). Family support has an impact on the compliance of hypertension sufferers in undergoing treatment. Incomplete patient treatment is caused by the role of family members who do not fully accompany the sufferer, as a result the hypertension they suffer from can recur (Molintao et al., 2019). The function of family members who do not accompany patients causes the patient's treatment to be incomplete (Roslandari, 2020). For people with hypertension, family support is very important in determining treatment compliance, the more support is given, the higher the level of compliance. Social support such as giving awards, information support such as providing advice and recommendations for treatment to hypertensive patients, educating them about taking medication regularly, and promoting routine blood pressure checks at health centers are the most important factors in increasing medication compliance.

Based on research conducted by Wahyu et al., (2023) shows that family support and compliance with taking hypertension medication are interrelated with a p value of 0.024 ( $<0.05$ ) and OR 2.130. Research conducted by Hartawan (2023) shows that family support is proven to be one of the factors that influences the level of compliance of hypertensive patients in carrying out the healing process. Therefore, it is hoped that the community can provide support to hypertensive patients so that they are motivated and enthusiastic in undergoing treatment.

For people with hypertension, medication

compliance is influenced by several factors, including the level of knowledge, in addition to family support. Hypertension sufferers will not be able to overcome relapses or avoid problems if they do not have knowledge. This is because most hypertension sufferers do not have knowledge and live in rural areas. Patients with low levels of knowledge have a low level of understanding of hypertension. Poor behavior towards hypertension treatment is still a result of the lack of knowledge of sufferers. Hypertension sufferers still consume excessive salt, and one example of their unhealthy behavior is coffee consumption. The motivation of sufferers to seek therapy can be influenced by ignorance and unhealthy habits. In 2023, 231 hypertension patients visited the Pante Ceureumen Health Center, of which 82 people (or 35% of the total) were compliant with treatment, while 145 people (or 65% of the total) were not compliant with treatment. In 2024, the number of hypertension patients who visited increased to 437 people, with details of 137 people (or 31% of the total) being compliant with treatment and 300 people (or 69% of the total) being non-compliant with treatment. The findings are based on data from visits to the health center and the results of interviews with officers. Based on the results of initial interviews with health center officers, the explanation is reinforced by the fact that hypertensive patients do not remember when their medication runs out and feel healthy even though they do not take medication. They also do not seek treatment because there is no family to take them to the health center. As a result, hypertensive patients are not compliant in carrying out treatment according to the recommendations of health center officers. The results of the study above are also supported by preliminary study data conducted by researchers at the Pante Ceureumen Health Center, where seven elderly people reported not taking their hypertension medication regularly, with an average education of only elementary school. In addition, family support is also very

minimal. Based on the background description above, the purpose of this study is to determine the relationship between family support and medication adherence in hypertension patients at the Pante Ceureumen Health Center, West Aceh, and to determine the relationship between knowledge and medication adherence in hypertension patients at the Pante Ceureumen Health Center, West Aceh Regency.

## **MATERIALS & METHODS**

This type of research is analytical using a cross-sectional approach, namely to determine the relationship between the dependent variable and the independent variable. This research was conducted at the Pante Ceureumen Health Center located on Jalan Meulaboh-Pante Ceureumen, Pante Ceureumen Village, Pante Ceureumen District, West Aceh Regency, Aceh Province. The research was conducted in February 2025. The reason for conducting the research at the Pante Ceureumen Health Center was because the health center was the number one health center with the most recorded hypertension patients in the West Aceh region, had respondents who met the criteria to be studied, the research location had affordable access and was easy in administration, and the relationship between medication compliance with family support and knowledge in hypertension patients in this location has not been studied. The population in this study were all hypertension patients who visited the Pante Ceureumen Health Center, Pante Ceureumen District, West Aceh Regency from June to December 2024, totaling 396 people. The sample in this study was all hypertensive patients who visited the Pante Ceureumen Health Center, Pante Ceureumen District, West Aceh Regency. To calculate the minimum sample size, the Slovin formula is used as follows:

$$n = \frac{N}{1 + N(d)^2}$$
$$n = \frac{396}{1 + 396(0,1)^2} \quad n = \frac{396}{1 + 92(0,01)} \quad n = \frac{396}{4,96}$$
$$n = 79,8$$

n = 80

Description:

n = number of samples

N = number of populations

d = margin of error with a confidence level of 90% (0.1)

Data collection was carried out in two ways, namely as follows: After obtaining permission from the head of the Pante Ceureumen Health Center work area to obtain a research permit, the researcher then conducted research at the Pante Ceureumen Health Center, Pante Ceureumen Regency. The researcher conducted the research by selecting 48 respondents from 396 people who visited the Pante Ceureumen Health Center, West Aceh Regency in June to December in 2024, who were selected using a probability sampling technique, after the respondents were selected, the researcher explained the intent and purpose of this study, the patient was willing to become a respondent, I gave a consent form to become a respondent to be signed, after being signed, the researcher gave a questionnaire to the respondents to fill out.

Data collection instruments are tools used in research to collect various information that is processed quantitatively and arranged systematically (Notoatmodjo, 2012). The tool used for data collection in this study was a questionnaire in the form of statements related to family support, knowledge, and medication adherence consisting of 42 statement items adopted from the research of Purnamasari (2021) which have been tested

for validity and reliability. The questionnaire on the family support variable with the highest calculated r value was 0.890 with a reliability value of 0.927, the knowledge variable with the highest calculated r value was 0.897 with a reliability value of 0.930, and the medication adherence variable with the highest calculated r value was 0.891 with a reliability value of 0.931. In this study, the researcher divided the questionnaire into several parts as follows: 1) Demographic data: including name, gender, age, last education, and occupation; and 2) Research questionnaire: consisting of 12 family support statement items, 22 knowledge statement items, and 8 medication compliance statement items.

### STATISTICAL ANALYSIS

Data analysis was carried out through univariate analysis and bivariate analysis. Univariate analysis was carried out using descriptive statistical methods for each research variable using the frequency distribution based on the percentage of each variable.

### RESULT

#### Relationship of Family Support to Medication Compliance in Hypertension Patients at Pante Ceureumen Health Center

The following table shows the relationship of family support to medication compliance in Hypertension Patients at Pante Ceureumen Health Center, Pante Ceureumen District, West Aceh Regency.

**Table 1. Relationship between Family Support and Medication Compliance**

No.	Family Support	Medication Compliance						Total		P value
		Good		Enough		Less		N	%	
		N	%	N	%	N	%	N	%	
1	Good	64	91,4	2	2,9	4	5,7	70	100	
2	Enough	5	71,4	1	14,3	1	14,3	7	100	0,000
3	Less	1	33,3	1	33,3	1	33,4	3	100	
	Total	70		4		6		80		

The results of the Pearson Chi-Square test showed a p-value of 0.000, since the p-value is less than 0.005. This indicates a significant

association between family support and medication adherence among hypertension patients at the Pante Ceureumen Health

Center in West Aceh. These findings align with research by Fadhilah (2020), which also demonstrated a meaningful correlation between family support and medication compliance among hypertensive patients in the Pamarican Health Center area, Ciamis Regency, with a significance value of 0.000, which is lower than the alpha value of 0.05. The strength of this relationship is reflected in the correlation coefficient of 0.697, which falls within the strong category (0.60–0.799). The link between family support and treatment adherence may be attributed to the influence of family in shaping individual

behavior. Hypertension sufferers who receive good family support tend to be more enthusiastic about recovering (Roslandari, 2020).

**Relationship of Knowledge to Medication Compliance in Hypertension Patients at Pante Ceureumen Health Center**

The following table shows the relationship of knowledge to medication compliance in Hypertension Patients at Pante Ceureumen Health Center, Pante Ceureumen District, West Aceh Regency.

**Table 2. Relationship between Knowledge and Medication Compliance**

No.	Knowledge	Medication Compliance						Total		P value
		Good		Enough		Less		N	%	
		N	%	N	%	N	%			
1	Good	61	93,8	2	3,07	2	3,07	65	100	
2	Enough	6	60	1	10	3	30	10	100	0,000
3	Less	3	60	1	20	1	20	5	100	
	Total	70		4		6		80		

Based on the analysis using the Pearson Chi-Square test, the study obtained a p-value of 0.000. Since this value is less than 0.005, it indicates that the alternative hypothesis (H1) is accepted and the null hypothesis (H0) is rejected. Therefore, it can be concluded that there is a significant relationship between patients' knowledge and their adherence to medication among individuals with hypertension at the Pante Ceureumen Health Center in West Aceh. These findings are in line with a previous study by Christiyani et al. (2023), which found that out of the respondents assessed for knowledge level, 43.7% (31 people) had a high level of knowledge, while 53.5% (38 people) showed low medication adherence. The Spearman rank test further revealed a statistically significant and positive correlation between knowledge and medication compliance (p-value = 0.000 < 0.05), with a strong correlation coefficient of 0.871. The association between knowledge and adherence in hypertensive patients at the Pante Ceureumen Health Center is likely due to the role of knowledge in shaping a person's attitudes. Individuals with sufficient

understanding of their condition are generally more likely to respond appropriately and adhere to treatment recommendations (Usman et al., 2020).

**DISCUSSION**

**Relationship of Family Support to Medication Compliance in Hypertension Patients at Pante Ceureumen Health Center**

The connection between family support and medication adherence among hypertension patients at the Pante Ceureumen Health Center can be explained through several health behavior frameworks, particularly the social support theory and the self-care theory for chronic illness. Family support—which includes emotional (motivating), instrumental (preparing medication), informational (explaining dosage), and reward reinforcement—plays an important role as a trigger for patient adherence behavior. A recent systematic review of 14 studies showed that family support was significantly associated with increased medication adherence, as they provided reminders, positive value reinforcement, and

light supervision of patients. This mechanism is in line with the theory of chronic illness self-care from Riegel et al., where social support from family increases patients' ability

to carry out self-care maintenance—including taking medication—with more discipline (Sudirman & Abdullah, 2024).

In the local context, a study at the Tanah Tinggi Health Center in Tangerang found that hypertensive patients who received strong family support were about 2.13 times more likely to adhere to taking medication than those who did not ( $p=0.024$ ;  $OR=2.130$ ) (Wahyu et al., 2023). These findings reinforce that family is not only a source of motivation, but also a practical agent that strengthens patients' self-efficacy in carrying out their medication regimen. Thus, family support acts as a cue to action in the Health Belief Model, strengthening the perception of benefits and reducing patient barriers to taking medication consistently.

### **Relationship between Knowledge and Medication Compliance in Hypertension Patients at Pante Ceureumen Health Center**

The relationship between knowledge and medication adherence in hypertensive patients can be explained through the Health Belief Model (HBM) approach. This model states that a person's health behavior is greatly influenced by their perception of the disease and its treatment, one of which is formed by the level of knowledge. Patients who have good knowledge about hypertension and its treatment will be more aware of the risks and complications that may arise if the disease is not controlled, such as stroke, kidney failure, and heart attack (Marwan, Rahmawati dan Iqbal, 2024). This knowledge increases the individual's perception of the susceptibility and severity of hypertension, as well as the benefits of medication adherence (perceived benefits). In addition, adequate understanding also helps patients identify and overcome barriers (perceived barriers) that they may face, such as side effects of drugs or forgetting to take

medication. With sufficient knowledge, patients also have greater self-efficacy to follow medical advice consistently. Therefore, the higher the patient's level of knowledge, the more likely they are to comply with taking antihypertensive drugs regularly. The results of the study showing a relationship between knowledge and adherence support this theory, and emphasize the importance of health education as an intervention in improving medication adherence in hypertensive patients (Agustina et al., 2023).

### **CONCLUSION**

From the results of the study, it can be inferred that there are two main conclusions. First, there is a statistically significant link between family support and the level of medication adherence among patients with hypertension at the Pante Ceureumen Health Center in West Aceh, as indicated by a  $p$ -value of 0.000. Second, the study also found a significant relationship between patients' knowledge about hypertension and their consistency in taking medication, with the same  $p$ -value of 0.000. These findings highlight the important role that both family involvement and patient understanding play in supporting effective hypertension treatment.

### ***Declaration by Authors***

**Acknowledgement:** None

**Source of Funding:** None

**Conflict of Interest:** No conflicts of interest declared.

### **REFERENCES**

1. Agustina, N. W. P. D., Nursasi, A. Y., & Permatasari, H. (2023). Edukasi Kesehatan dalam Meningkatkan Kepatuhan Minum Obat pada Lansia Hipertensi. *Jurnal Keperawatan Silampari*, 6(2), 2049-2059. Diakses melalui: <https://doi.org/10.31539/jks.v6i2.5961>
2. Badan Pusat Statistik. 2022. *Statistik Indonesia 2022*. Badan Pusat Statistik. Diakses melalui: <https://www.bps.go.id/publication/2022/02/25/0a2afea4fab72a5d052cb315/statistik->

- indonesia-2022.html.
3. Christiyani, N., Marlina, T. T., & Estri, A. K. 2023. Hubungan tingkat pengetahuan dengan kepatuhan minum obat pada pasien hipertensi di Yogyakarta. *Journal Center of Research Publication in Midwifery and Nursing*, 7(1), 18-27. Diakses melalui: <file:///C:/Users/User/Downloads/277-Original%20Article-982-1-10-20230810.pdf>
  4. Fadhilah, S. N. 2020. Hubungan Dukungan Keluarga dengan Kepatuhan Minum Obat pada Penderita Hipertensi di Wilayah Kerja Puskesmas Pamarican Kabupaten Ciamis Tahun 2020. Diakses melalui: <http://repository.unigal.ac.id:8080/handle/123456789/787>
  5. Gaol, R. L., & Simbolon, F. N. (2022). Gambaran Karakteristik Pasien Hipertensi di Rumah Sakit Umum Full Bethesda Medan Tahun 2021. *Jurnal Online Keperawatan Indonesia*, 5(1), 30-37. Diakses melalui: <https://doi.org/10.51544/keperawatan.v5i1.2992>
  6. Hartawan, L. A. 2023. Hubungan Antara Dukungan Keluarga Dengan Kepatuhan Minum Obat Pada Penderita Hipertensi Di Puskesmas X Kabupaten Bekasi. Diakses melalui: [https://repository.stikesmitrakeluarga.ac.id/repository/e\)%20Skripsi\\_Lia%20Ananda%20Hartawan\\_201905054\\_4B\\_S1Keperawatan.pdf](https://repository.stikesmitrakeluarga.ac.id/repository/e)%20Skripsi_Lia%20Ananda%20Hartawan_201905054_4B_S1Keperawatan.pdf)
  7. Juniarti, B., Setyani, F. A. R., & Amigo, T. A. E. (2023). Tingkat Pengetahuan Dengan Kepatuhan Minum Obat Pada Penderita Hipertensi. *Cendekia Medika: Jurnal Stikes Al-Maarif Baturaja*, 8(1), 43-53. Diakses melalui: <https://doi.org/10.52235/cendekiamedika.v8i1.205>
  8. Lukitaningtyas, D., & Cahyono, E. A. 2023. Hipertensi; Artikel Review. *Pengembangan Ilmu Dan Praktik Kesehatan*, 2(2), 100-117. Diakses melalui: <https://doi.org/10.56586/pipk.v2i2.272>
  9. Molintao, W. P., Ariska, A., & Ambitan, R. O. (2019). Hubungan Dukungan Keluarga dengan Kepatuhan Minum Obat Pasien Hipertensi di Puskesmas Towuntu Timur Kabupaten Minahasa Tenggara. *Journal Of Community & Emergency*, 7(2), 156-169. Diakses melalui: <http://ejournal.unpi.ac.id/index.php/JOCE/article/view/214>
  10. Notoatmodjo, S. 2018. *Metodologi Penelitian Kesehatan*. Jakarta: Rineka Cipta.
  11. Purnamasari, N. 2021. Hubungan Dukungan Keluarga dengan Kepatuhan Minum Obat Pasien Hipertensi di Puskesmas Selemadeg. Diakses melalui: [https://repository.itekes-bali.ac.id/medias/journal/2021\\_NI\\_GUSTI\\_AYU\\_PUTU\\_EKA\\_PURNAMASARI\\_B\\_17C10110.pdf](https://repository.itekes-bali.ac.id/medias/journal/2021_NI_GUSTI_AYU_PUTU_EKA_PURNAMASARI_B_17C10110.pdf)
  12. Purnawinadi, I. G., & Lintang, I. J. (2020). Hubungan dukungan keluarga dengan kepatuhan minum obat pasien hipertensi. *Jurnal Skolastik Keperawatan*, 6(1), 35-41. Diakses melalui: <https://doi.org/10.35974/jsk.v6i1.2248>
  13. Riskesdas Aceh. 2022. *Riset Kesehatan Dasar*. Jakarta: Kementerian Kesehatan RI. Diakses melalui: [https://kemkes.go.id/app\\_asset/file\\_content\\_download/1702958336658115008345c5.53299420.pdf](https://kemkes.go.id/app_asset/file_content_download/1702958336658115008345c5.53299420.pdf)
  14. Riskesdas Aceh. 2021. Jakarta: Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI. Diakses melalui: [https://kemkes.go.id/app\\_asset/file\\_content\\_download/Profil-Kesehatan-Indonesia-2021.pdf](https://kemkes.go.id/app_asset/file_content_download/Profil-Kesehatan-Indonesia-2021.pdf)
  15. Roslandari, L. M. W. (2020). The Relationship between Family Support and The Level Of Adherence To Treatment Of Hypertensive Outpatients in The Chronic Disease Management Program (A Study Conducted in Malang Primary Health Center). *Pharmaceutical Journal of Indonesia*, 5(2), 131-139. Diakses melalui: <https://doi.org/10.21776/ub.pji.2020.005.02.10>
  16. Suciana, F., Hidayati, I. N., & Daryani, D. (2024). Peningkatan Pengetahuan Tentang Komplikasi Hipertensi Beserta Pencegahannya. *WASATHON Jurnal Pengabdian Masyarakat*, 2(02), 57-61. Diakses melalui: <https://doi.org/10.61902/wasathon.v2i02.984>
  17. Sudirman, A. N., & Abdullah, I. (2024). Efektifitas Family Support Grup dalam Meningkatkan Kepatuhan Kontrol Minum Obat pada Penderita Hipertensi. *Healthy Tadulako Journal (Jurnal Kesehatan Tadulako)*, 10(4), 675-681. Diakses melalui: <https://doi.org/10.22487/htj.v10i4.1437>
  18. Sulistyana, C. S. (2019). Hubungan dukungan keluarga dengan kepatuhan minum obat dan kontrol diit penderita hipertensi. *Jurnal Kesehatan Holistic*, 3(2),

- 28-36. Diakses melalui: <https://doi.org/10.33377/jkh.v3i2.51> Student Journal, 3(6), 1751-1759. Diakses melalui: <https://doi.org/10.33024/mahesa.v3i6.10526>
19. Usman, U., Budi, S., & Sari, D. N. A. (2020). Pengetahuan dan sikap mahasiswa kesehatan tentang pencegahan COVID-19 di Indonesia. *Jurnal Ilmu Keperawatan Dan Kebidanan*, 11(2), 258-264. Diakses melalui: <https://doi.org/10.26751/jikk.v11i2.835>
20. Wahyu, L., Kusumastuti, N. A., & Idu, C. J. (2023). Hubungan Dukungan Keluarga dengan Kepatuhan Minum Obat Antihipertensi di Puskesmas Tanah Tinggi Tangerang. MAHESA: Malahayati Health
- How to cite this article: Devi Febrianti, Fitria. The Relationship between family support and knowledge on medication compliance in hypertension patients at the Pante Ceureumen Health Center, West Aceh Regency. *International Journal of Research and Review*. 2025; 12(9): 99-106. DOI: <https://doi.org/10.52403/ijrr.20250911>

\*\*\*\*\*