

FAMILY SUPPORT AND SELF-MANAGEMENT BEHAVIOR IN HYPERTENSION PATIENTS IN THE COMMUNITY

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Info Artikel	Abstract
<p>DOI : https://doi.org/10.26751/ijp.v10i1.3303</p>	<p>Hypertension is a chronic disease that requires long-term management through optimal self-management behavior. However, many hypertensive clients are still unable to perform self-management consistently. One factor suspected of playing a role in improving self-management behavior is family support. This study aims to analyze the relationship between family support and self-management behavior in hypertensive clients. This study uses a quantitative correlative design with a cross-sectional approach. The independent variable is family support and the dependent variable is self-management behavior. This study was conducted in February-March 2025 in the Working Area of the Dawe Community Health Center, Kudus Regency with a sample of 106 respondents. The instruments used were a family support questionnaire with a Cronbach Alpha value of 0.628 and the Hypertension Self-Management Behavior Questionnaire (HSMBQ) to measure self-management behavior. The data collection procedure was carried out by filling out the questionnaire directly. Data analysis was carried out using the Spearman rho statistical test with a significance level of 0.05. The results of the study showed a significant relationship between family support and self-management behavior in hypertensive clients with a p-value of 0.000 and a correlation coefficient of 0.333, indicating a positive relationship with weak to moderate strength. It can be concluded that family support plays a role in improving self-management behavior in hypertensive clients. Therefore, nurses are expected to actively involve families in nursing care through family-based education and interventions to improve optimal hypertension management.</p>
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I. INTRODUCTION

Hypertension is a non-communicable disease that is a global health problem and contributes significantly to the increasing morbidity and mortality rates due to cardiovascular disease. World Health Organization (WHO) reports that hypertension is a major risk factor for heart disease, stroke, and kidney failure, and is a cause of premature death worldwide (Organization, 2021)

According to World Health Organization (WHO), more than 1.9 billion adults suffered from hypertension in 2019. In Indonesia, the

prevalence of hypertension reached 34.1% in 2020 (Ministry of Health of the Republic of Indonesia, 2020). In Indonesia, the prevalence of hypertension remains high and shows an increasing trend. According to the Basic Health Research (Riskesdas), the prevalence of hypertension among people aged 18 years and older reached 34.1%, with the majority of sufferers unable to optimally control their blood pressure (Kemenkes, 2018). This situation indicates that hypertension remains a serious challenge in healthcare, particularly in the management of long-term chronic diseases.

Based on the Kudus Regency Health Profile (2023), the estimated number of people with hypertension aged 15 years and over in 2023 was 232,914, or 26.8% of the total population aged 15 years and over. The proportion of people with hypertension who are unaware of their condition remains high, putting them at risk of long-term complications. This finding confirms that prevention, early detection, and control of hypertension remain a global public health priority (WHO, 2023).

Hypertension not only causes clinical problems but also has broad socioeconomic impacts. Hypertension increases the risk of disorders. At the family level, the burden of this chronic disease forces family members to bear the costs of treatment, care, and functional support, while the family's productivity as an economic unit can decline.

At the health system and country levels, the high prevalence of hypertension increases demand for medical services, long-term medication use, and public health financing, which in turn impact resource allocation and service quality. This statement emphasizes that hypertension control must go beyond a purely clinical approach and include patient empowerment strategies and interventions that reduce the long-term burden (Singh et al., 2024).

Hypertension management does not only depend on pharmacological therapy, but also requires the active involvement of patients in carrying out self-management. Hypertension self-management includes an individual's ability to regulate diet, limit salt intake, engage in regular physical activity, manage stress, monitor blood pressure, and adhere to recommended treatment (Li et al., 2020). Self-management which is proven to be able to help patients maintain controlled blood pressure and prevent complications.

Various hypertension control programs have been implemented, such as healthy lifestyle campaigns, antihypertensive medication, and regular blood pressure checks. However, these efforts have not shown optimal results. Many patients fail to consistently follow their treatment due to

various obstacles. Several studies have shown that barriers to hypertension management include low adherence to therapy, limited information and education, and limited access to healthcare (Rozani et al., 2025).

One important external factor is family support. The family is the closest support system for individuals with chronic illnesses. Family support can take the form of emotional, informational, instrumental, and reward support. This support can increase patient motivation, adherence, and confidence in self-managing their illness.

Several studies have shown that self-management behaviour plays an important role in controlling hypertension and is associated with better clinical outcomes. In their research (Miranti et al., 2023) stated that there is a relationship between family support and self-care management in elderly hypertensive patients with significant results ($p < 0.05$). The same thing was also conveyed by (Juliana, 2023) in her research, stating that there is a positive and significant relationship between family support and self-care management hypertensive patients ($p = 0.000$; $r = 0.518$).

In the context of nursing, the family is seen as an integral part of nursing care for hypertensive patients. Nurses have a strategic role in involving the family as partners in disease management, particularly in improving their abilities. self-management Patients. Several studies have shown that hypertensive patients who receive good family support tend to have better blood pressure control compared to patients who receive less family support.

However, the relationship between family support and hypertension self-management still requires further study, particularly within the cultural context and specific societal characteristics. Therefore, this study is important to determine the relationship between family support and self-management in hypertensive patients. The results can serve as a basis for developing family-based nursing interventions to improve quality of life and optimally control hypertension. The

purpose of this study was to analyze the relationship between family support and self-management behavior in hypertensive clients.

II. RESEARCH METODHS

This research design uses a descriptive correlation approach and a quantitative approach. Family support is the independent variable, and self-management behavior is the dependent variable. This study was conducted from January to February 2025 among hypertension patients in the Dawe Community Health Center, Kudus Regency. Sampling was conducted using the random sampling method. Researchers use the formula to calculate the minimum sample size estimate, 106 respondents were obtained. The inclusion criteria for this study were respondents aged 15–60 years, diagnosed with hypertension, and able to read and write. Exclusion criteria were complications and disabilities.

This questionnaire was used to measure hypertension self-management variables in hypertensive patients. This questionnaire was adapted from Akhter's (2010) study entitled "Self-Management Among Patients with Hypertension in Bangladesh" and translated by Mariana & Simanullang (2019). This instrument consists of 40 items, with 13 items measuring self-integrity, 9 items measuring self-regulation, 9 items measuring interactions with healthcare professionals, 4 items measuring blood pressure monitoring, and 5 items measuring adherence to recommended regimens. This instrument is measured using a Likert scale ranging from 1 to 4 (never to always). The questionnaire has been tested for validity and reliability with the results of the questionnaire test analyzed using the correlation technique formula Pearson Product Moment with software computer. The analysis results obtained the calculated r value self management behavior between 0.550–0.887 r value table (0.444 with a significance level of 5%), which means that all variable statements self management behavior declared

valid, while for the reliability test the results obtained were α cronbach (α) of the variable self management behavior namely $0.758 > (0.60)$, which means the variable statement hypertension self management is reliable.

To measure the family support variable, the researcher used a standard questionnaire containing information about family support sourced from (Nursalam, 2017) in research (Toulasik, 2019). The scale used was a Likert scale of 1-4 (always-never) with positive statements. This questionnaire contains three sub-chapters: emotional support and appreciation (4 questions), instrumental support (4 questions), and information support (4 questions). The family support questionnaire has been declared valid in research (Toulasik, 2019) with a value of r table 0.301 and reliable with value Cronbach Alpha 0.628. Interpretation of the family support questionnaire if the score is 12-23, if the score is 24-35, and if the score is 36-48, then the score is 0.628.

Correlation test using statistical test Spearman's Rho with p value = 0.000 and a correlation value of 0.333, which shows a significant relationship between family support and self-management in hypertension clients in the Dawe Community Health Center Work Area.

The ethics of this research are based on the approval number of the health research ethics committee of Muhammadiyah University of Kudus: 186/Z-7/KEPK/UMKU/II/2025, which states that this research is in accordance with the guidelines of the Council for International Organizations of Medical Sciences (CIOMS) in 2016 and the National Guidelines for Health Research Ethics (KNEPK) in 2017. Researchers are required to include informed consent as evidence that the patient is willing to be a respondent in this research.

III. RESULT AND DISCUSSION

A. Result

1. Respondent Characteristics

Table 1. Respondent Characteristics

Characteristics	f	%	Mean	SD
Age	-	-	41.2736	9.31106
Gender				
Man	23	21,7		
Woman	83	78,3		
Work				
IRT	57	53,8		
Civil Servant/ TNI/Polry Honoror	5	4,7		
Farmers	1	0,9		
Students	2	1,9		
Other	41	38,7		
Education				
SD	3	2,8		
Junior High School	18	17,0		
Vocational School/ High Scool	78	73,6		
College	7	6,6		
No School	0	0		
Income				
< Minimum Wage of Kudus (Rp 2.680.495,72	24	22,6		
≥ Minimum Wage of Kudus Rp 2.680.495,72)	28	26,4		
Do not have Family History of Hypertension	54	50,9		
There Is	88	83,0		
No	18	17,0		
Long-term Hypertension				
< 1 year	12	11,3		
1-5 year	48	45,3		
> 5 year	46	43,4		
Jumlah	106	100		

Table 1 shows the characteristics of the respondents as follows: mean age 41.2 years (SD = 9.31); mostly female (83 respondents; 78.3%); main occupation housewife (57 respondents; 53.8%); highest education high school/equivalent (78 respondents; 73.6%);

and duration of hypertension 1-5 years (48 respondents; 45.3%).

2. Self-Management Behavior in Hypertensive Clients

Table 2. Self-Management Behavior in hypertension clients at Dawe Community Health Center

Variables	f	%
Hypertension Management		
Not Enough	1	0,9
Enough	3	2,8
Good	102	96,2
Total	106	100

Table 2 shows that the majority of hypertension clients at Dawe Community Health Center have good self-management (102 respondents; 96.2%), followed by adequate self-management (3 respondents; 2.8%).

3. Family Support for Hypertension Clients in the Dawe Community Health Center Area

Table 3. Family Support for Hypertension Clients in the Dawe Community Health Center Area (n=106)

Variables	f	%
Family Support		
Enough	2	1,9
Good	104	98,1
Total	106	100

Table 3 shows that most of the hypertension clients at Dawe Community Health Center have good family support (104 respondents; 98.1%), followed by fairly good support (2 respondents; 1.9%).

B. Discussion

1. Respondent Characteristics

Based on the distribution data in Table 1, it shows that the majority of hypertension sufferers are women (78.3%). This could be due to the fact that most respondents were women. A key biological explanation is the hormonal effects that change with age. After menopause, decreased estrogen is associated with increased blood pressure and cardiovascular risk, so the prevalence of hypertension in women increases progressively in older age groups (Huegli &

Pechère-Bertschi, 2023). Socio-behavioral and demographic factors also play a role. Women often have higher rates of health care visits than men, resulting in more frequent diagnoses of hypertension, which can increase the reported rate of hypertension among women (Mills et al., 2020).

Table 1 shows that the average age of hypertension sufferers is 41.23 years. Based on several epidemiological studies, age is a strong factor associated with the incidence of hypertension, with prevalence increasing with age. Data from Centers for Disease Control and Prevention (CDC) shows that at the age of 18-39 years the prevalence is around 22.4% increasing to 54.5% at the age of 40-59 years, this shows that the risk of hypertension increases sharply in middle and old adulthood.

Based on the research conducted, the majority of hypertension sufferers are female (78.3). Researchers analyzed that female gender is one of the factors that influence the cause of hypertension, this is because women, especially those who have gone through menopause, experience a decrease in estrogen levels, this is in line with research conducted by Nurhayati (2023), women who have not yet menopausal are protected by the hormone estrogen which plays a role in increasing High Density Lipoprotein (HDL) levels. High HDL cholesterol levels are a protective factor in preventing the process of Atherosclerosis (Podungge 2020 in Nurhayati 20203). The results obtained from other opinions also state that the prevalence of hypertension in women entering menopause increases due to hormonal factors (Khasanah, 2022).

Research results on occupational categories found that housewives (IRT) were the most common category. This aligns with research findings suggesting that women outnumber men. According to research conducted by , mothers' busy household chores can be a source of stress, contributing to increased blood pressure. Furthermore, housewives who lack exercise can accumulate fat in the body, impeding blood circulation. This accumulation of fat, which presses on blood vessels, can potentially lead

to increased blood pressure (Muthahharah, 2023).

Educational status is a social determinant of health that strongly influences various chronic health conditions, such as hypertension. Research (Sun, 2022) indicates that low education is associated with higher risk behaviors (such as unhealthy diet, lack of physical activity, and higher smoking/alcohol consumption) as well as limited access to healthcare services and medical literacy.

In line with research (Satiyem et al., 2024) which states that there is a significant positive relationship between education level and the incidence of hypertension ($p=0.000$; $r=0.806$) and age and the incidence of hypertension ($p=0.000$; $r=0.740$) which means the lower the level of education, the higher the incidence of hypertension.

Research results on occupational categories found that housewives (IRT) were the most common category. This aligns with research findings suggesting that women outnumber men. According to research conducted by (Jauhar, Muhamad, Elma Windya Ramadani, 2025), mothers' busy household chores can be a source of stress, contributing to increased blood pressure. Furthermore, housewives who lack exercise can accumulate fat in the body, impeding blood circulation. This accumulation of fat, which presses on blood vessels, can potentially lead to increased blood pressure (Muthahharah, 2023).

(Barrett et al., 2025) stated in their research that the time since diagnosis and the duration of disease management influence the success of blood pressure control, which is a crucial aspect in reducing the risk of complications. This is in line with research by (Firza Pinamiranti, 2025) that The longer a person has hypertension, the greater its impact on actual blood pressure and other comorbidities.

2. Self-Management in hypertensive clients

Based on the research conducted, it shows that the majority of hypertension clients in

the Dawe Community Health Center have good self-management, with a total of 102 respondents (96.2%). Three respondents (2.8%) have adequate self-management.

Self-management In hypertensive clients, it is the individual's ability to actively manage their disease condition through behavior. Self-care which includes blood pressure monitoring, adherence to medication, healthy lifestyle management, and adaptation to behaviors that support long-term health.. Self-management It is not just a physical action, but also includes cognitive and psychosocial aspects that help patients integrate knowledge, motivation, and skills in maintaining continuous blood pressure control. The main components of self-management include self-monitoring. (self-monitoring), self-regulation (self-regulation), active interaction with health workers, as well as implementing lifestyle changes such as a low-salt diet, regular physical activity, and stress management (Liu et al., 2024).

Several studies and literature reviews underline the importance of self-management in hypertension management. For example, (Wandira, 2023) research showed that the majority of hypertension clients at the Babakan Community Health Center demonstrated good self-management, with 102 respondents (96.2%) demonstrating adequate self-management. Most respondents demonstrated good hypertension self-management Recognizing that hypertension can lead to complications and even death. The primary goal of self-management (Riadi, 2018) is to enable clients to manage their health effectively and sustainably, especially those with chronic diseases.

Research conducted by (Wirapradnyani et al., 2025) showed that the majority of respondents, 42 people (56.0%), had good hypertension self-management. In their study (Sapwal et al., 2021), they stated that hypertension self-management is the active involvement of individuals in decision-making regarding hypertension treatment, which is carried out continuously to maintain and improve health and thus prevent the risk of disease complications. The five components of self-management include self-

integrity, self-regulation, interaction with healthcare professionals, self-monitoring, and adherence to treatment programs. This is in line with research (Alifa et al., 2024) which showed a relatively high level of self-management in 43 patients, reaching 66.15%. Self-management refers to an individual's ability to care for their health independently, by following established self-management guidelines for hypertension.

Recent research shows that self-management is an important aspect in controlling hypertension. For example, research conducted at several health facilities in Indonesia shows that self-management which is significantly correlated with patient blood pressure control, where the better the behavior self-management the more effectively blood pressure is controlled. This reflects the role self-management in preventing complications of hypertension such as cardiovascular disease, stroke, and other organ damage.

3. Family Support

The research conducted showed that family support for hypertension clients in the Dawe Community Health Center area showed that 2 respondents had quite good family support (1.9%) and 104 respondents had good family support (98.1%).

Family support is a form of social support that plays a crucial role in the management of chronic diseases, including hypertension. The concept of family support encompasses emotional, informational, instrumental, and motivational aspects provided by family members to patients. This form of support significantly influences patient health behaviors, particularly regarding self-care or self-management which is the core of effective hypertension control.

The level of support for self-management among hypertension patients in the Dawe Community Health Center area was categorized as good by the majority (104 people, or 98.1%). The questionnaire data revealed that respondents received emotional, instrumental, and informational support.

Sometimes the closest people provide attention by accompanying them in treatment, providing time and facilities for treatment needs and reminding them of check-ups, taking medication and living a healthy lifestyle so that respondents feel more motivated to live a healthy life.

Family support is essential for patients to manage their disease. Families are the primary support system for hypertensive patients in maintaining their health. Families play a crucial role in the care and prevention of other family members' health issues (Bahari, 2025).

4. Relationship between Family Support and self-management behavior

The results of the research that has been conducted show a relationship between family support and self-management in hypertension clients in the Dawe Community Health Center area with a p value = 0.000 and a correlation value of 0.333.

In line with research conducted by A. Priyanto (2025), which showed a relationship between family support and self-care management in elderly patients with hypertension at the Godean 2 Community Health Center, with a significance value of $p = 0.020$ ($p < 0.05$). Likewise, the results of research conducted by Munawwarah (2021) showed a significant correlation ($p = 0.000$) between family support and self-management with a correlation coefficient of 0.725. Family support will help increase knowledge about hypertension and provide motivation to achieve hypertension self-management goals, so that support helps improve the success of hypertension treatment.

These research results are consistent with the findings of this study in the Dawe Community Health Center area, which showed a p -value of 0.000 and a correlation of $r = 0.333$, indicating that family support was positively and significantly correlated with self-management skills in hypertensive clients at the research location. Overall, empirical evidence from these studies confirms that family support is an important factor that plays a role in encouraging self-management behavior. self-management

Hypertensive patients. Active family support provides additional motivation and encouragement for hypertensive clients to be more compliant with necessary care and treatment.

The limitation in this study is that the questionnaire used is self-report, thus heavily dependent on the honesty and subjective perceptions of respondents. This situation allows for information bias, where respondents tend to provide answers that are considered favorable by the researcher. Furthermore, the study was conducted at a single health care facility, the Dawe Kudus Community Health Center, so the characteristics of the respondents were relatively homogeneous. This makes the study unable to be generalized to hypertension client populations in other regions with different social, cultural, and economic characteristics.

IV. CONCLUSION

Conclusion

Based on the results of the research conducted, it shows that there is a significant relationship between family support and self-management in hypertension clients in the Dawe Community Health Center area with a p value = 0.000 and a correlation value of 0.333.

Active support from the family provides additional motivation and encouragement for hypertensive clients to be more compliant in undergoing the necessary care and treatment so as to increase knowledge about hypertension and provide motivation to achieve the goal of hypertension self-management.

Suggestion

a. Health care facilities

The results of this study are expected to serve as a basis for research areas to strengthen the role of families in hypertension management. It is recommended that families of hypertensive clients be actively involved in all health

education and monitoring activities, whether through the Posbindu PTM program, home visits, or Prolanis group activities. A family-based approach is expected to increase client adherence to self-management behaviors, thereby supporting sustainable blood pressure control at the community level.

b. Educational institutions

Nursing educational institutions are advised to strengthen their curricula regarding family nursing and chronic disease management, particularly hypertension. Nursing students need to be equipped with the skills to Conducting family support assessments and designing family-based nursing interventions. Furthermore, the results of this study can be used as teaching materials, case studies, and a basis for developing community nursing clinical practices oriented toward family empowerment.

c. Further research

Future research is recommended to use longitudinal or experimental designs to evaluate the effectiveness of family support interventions on improving self-management and blood pressure control in hypertensive clients. Furthermore, further research could explore other factors potentially influencing self-management, such as motivation, self-efficacy, health literacy, and non-familial social support. The use of qualitative approaches is also recommended to explore in-depth the experiences of clients and families in managing hypertension across different cultural contexts.

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REFERENCES

- Alifa, K., Hajrah, & Aryatika, K. (2024). Hubungan Self-management Behaviour terhadap Kualitas Hidup Pasien Hipertensi. *MPI (Media Pharmaceutica Indonesiana)*, 6(1), 36–44. <https://doi.org/10.24123/mpi.v6i1.6488>
- Barrett, R. B., Riesser, B., Martin, B., Sachdev, N., Rakotz, M. K., Sutherland, S. E., & Egan, B. M. (2025). Treatment in the First Month After Hypertension Diagnosis Improves Blood Pressure Control. *Hypertension*, 82(6), 1129–1136. <https://doi.org/10.1161/HYPERTENSIO.NAHA.124.23508>
- Firza Pinamiranti. (2025). Hubungan Lama Menderita dan Penyakit Komorbid dengan Tekanan Darah pada Penderita Hipertensi. *Journal of Language and Health*, 6(2).
- Huegli, S., & Pechère-Bertschi, A. (2023). Hypertension in women: what is different? *Cardiovascular Medicine*, 26(3), 74–78. <https://doi.org/10.4414/cvm.2023.02267>
- Jauhar, Muhamad, Elma Windya Ramadani, and D. T. L. (2025). Prediktor Hambatan Manajemen Diri pada Klien Hipertensi. *Jurnal Keperawatan Raflesia*, 7(1), 1–16., 1–16.
- Juliana, N. (2023). HUBUNGAN DUKUNGAN KELUARGA DENGAN SELF CARE MANAGEMENT PADA PENDERITA HIPERTENSI DI WILAYAH KERJA PUSKESMAS ALUE BILIE TAHUN 2022. *Getsempena Health Science Journal*, 2(1), 1–12. <https://doi.org/10.46244/ghsj.v2i1.2079>
- Kemenkes. (2018). Hasil Utama Riset Kesehatan Dasar. In *Kementrian Kesehatan Republik Indonesia*. <http://www.depkes.go.id/resources/down>

- load/info-terkini/hasil-risikesdas-2018.pdf
- Li, R., Liang, N., Bu, F., & Hesketh, T. (2020). The Effectiveness of Self-Management of Hypertension in Adults Using Mobile Health: Systematic Review and Meta-Analysis. *JMIR MHealth and UHealth*, 8(3), e17776. <https://doi.org/10.2196/17776>
- Liu, Y., Jiang, F., Zhang, M., Niu, H., Cao, J., Du, S., Chen, H., Wang, H., Gong, L., Rao, F., & Wu, H. (2024). Health literacy and self-management among middle-aged and young hypertensive patients: a parallel mediation effect of illness perception and self-efficacy. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1349451>
- Mills, K. T., Stefanescu, A., & He, J. (2020). The global epidemiology of hypertension. *Nature Reviews Nephrology*, 16(4), 223–237. <https://doi.org/10.1038/s41581-019-0244-2>
- Miranti, E. T., Wijayanti, A. E., & Handari, M. (2023). Analisis Dukungan Keluarga Dengan Self-Care Management Pada Lansia Hipertensi Family Support Analysis and Self-Care Management Among Elderly With Hypertension. *Jurnal Skolastik Keperawatan*, 9(1), 01–10.
- Nursalam. (2017). *Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan* (E. Tanujaya & Ariyanto (eds.); 2nd ed.). Salemba Medika.
- Organization, W. H. (2021). *No Title 濟無 No Title No Title No Title* (Vol. 32, Issue 3). World Health Organization.
- Rozani, M., Bachri, A. S., & Jamal. (2025). Systematic Literature Review: Faktor-Faktor yang Menghambat Pelaksanaan Self-Care pada Penderita Hipertensi. *HealthCaring: Jurnal Ilmiah Kesehatan*, 4(2), 2809–9117.
- Satiyem, S., Murtiningsih, D., & Pradessty, A. D. (2024). Hubungan Tingkat Pendidikan Dan Usia Dengan Kejadian Hipertensi. *Jurnal Kebidanan*, 4(1), 35–42. <https://doi.org/10.32695/jbd.v4i1.532>
- Singh, S. D., Senff, J. R., van Duijn, C. M., & Rosand, J. (2024). Treating Hypertension: Important for Heart Health, Fundamental for Brain Health. *Stroke*, 55(5), 1464–1466. <https://doi.org/10.1161/STROKEAHA.123.046179>
- Wandira. (2023). DI UPT PUSKESMAS BABAKAN SARI. *HUBUNGAN MOTIVASI DENGAN SELF-MANAGEMENT PADA PENDERITA HIPERTENSI DI UPT PUSKESMAS BABAKAN SARI* *Septi*, 1–10. <https://siakad.stikesdhh.ac.id/repositories/400219/4002190042/ARTIKEL PDF.pdf>
- Wirapradnyani, N. M. K., Gusti Ayu Ary Antari, & Widyanthari, D. M. (2025). HUBUNGAN MOTIVASI DENGAN MANAJEMEN DIRI PADA PASIEN HIPERTENSI. *Coping: Community of Publishing in Nursing*, 13(1), 38–43. <https://doi.org/10.24843/coping.2025.v13.i01.p05>