Indonesian Journal of Global Health Research
Volume 7 Number 1, February 2025
e-ISSN 2715-1972; p-ISSN 2714-9749
http://jurnal.globalhealthsciencegroup.com/index.php/IJGHR

THE RELATIONSHIP BETWEEN DRUG ADHERENCE AND BLOOD PRESSURE IN HYPERTENSIVE PATIENTS

Noviyana Cindy Aorazizah, Supratman*
Faculty of Health Sciences, Universitas Muhammadiyah Surakarta, Jl. A. Yani, Mendungan, Pabelan, Kartasura, Sukoharjo, Central Java 57162, Indonesia
*sup241@ums.ac.id

ABSTRACT
Hypertension is a long-term health condition that cannot be completely cured. However, individuals can effectively manage their blood pressure by undergoing prolonged or even lifelong medication therapy to keep it under control. This study aims to determine the adherence to taking medication in hypertensive patients at the Kartasura Health Center, Sukoharjo Regency. The study utilized a simple random sampling method to collect data, involving a total of 96 selected respondents. Data were collected in November – December 2024 using the MMAS-8 questionnaire (Morisky Medication Aderence Scale) and direct blood pressure measurement. The results of this study show that most of the respondents are women (58.3%), most of them are in the category of low compliance level (82.3%). The results of the statistical analysis yielded a p-value of 0.861, indicating that no significant correlation was found between adherence to medication and blood pressure levels among individuals diagnosed with hypertension. This study concluded that blood pressure in hypertensive patients will be stable if medication adherence is carried out properly.

Keywords: blood pressure; hypertensive patients; medication compliance

How to cite (in APA style)
Aorazizah, N. C., & Supratman, S. (2025). The Relationship between Drug Adherence and Blood Pressure in Hypertensive Patients. Indonesian Journal of Global Health Research, 7(1), 1127-1134. https://doi.org/10.37287/ijghr.v7i1.5780.

INTRODUCTION

Hypertension is a cardiovascular disorder that causes death worldwide. The onset of hypertension cannot be known because this disease does not show early symptoms, some hypertensive patients are not aware of the hidden threat Hypertension disease is said to be the cause of (Amanda & Martini, 2020). The condition is often referred to as a "silent disease" since individuals remain unaware that they have hypertension until their blood pressure is measured. (Cahyati, 2021).Hypertension is a long-term medical condition that cannot be completely cured; however, individuals can effectively manage their blood pressure by undergoing prolonged medication therapy, which may be required for a lifetime (Indawati et al., 2020). Hypertension is typically diagnosed after conducting two separate measurements with a two-minute interval, where elevated blood pressure levels are observed (Krisma Prihatini & Ns. Ainnur Rahmanti, 2021). Persistent and prolonged hypertension can contribute to severe health conditions such as strokes, heart attacks, heart failure, and is a primary factor in the development of chronic kidney disease. In Indonesia, this condition has the highest prevalence among diseases and stands as the leading cause of mortality among patients. Findings from the Basic Health Research indicate the significant impact of hypertension on public health (Riskesdas) in 2007 showed that most cases of hypertension have not been diagnosed (Yunianto, 2022). This is evident from the measurement results, which indicate that merely 7.2% of the population is aware of having hypertension, while only 0.4% of diagnosed cases adhere to hypertension treatment. Consequently, a significant 76% of the community remains unaware of their hypertensive condition (Yunita Fitriyani, 2022).

There are multiple contributing factors associated with the onset of hypertension. One of the most significant is age, as the likelihood of developing high blood pressure increases over time. Among individuals aged over 55 years, the prevalence of hypertension surpasses 55% (Dewi Ayuningtyas, 2022). According to data from the Centers for Disease Control and Prevention (CDC), when analyzed by gender, women generally have an equal likelihood of experiencing hypertension as men. However, in the 65-year-old age group, men tend to have a higher probability of developing high blood pressure compared to women. While in the age group that is already over 65 years old, women will be more likely or at risk of developing high blood pressure (Noveralin, 2023). Genetics or hereditary factors simply play several roles in several non-communicable diseases, one of which is high blood pressure or hypertension. When a member of a family will be able to pass on from one generation to another through the intermediary of those genes, this process is called heredity. (Leonora, 2023).

According to the WHO, of the 50% of known hypertension sufferers, only 25% of individuals undergo treatment, yet merely 12.5% receive adequate care. The management of hypertension remains ineffective, as the condition frequently recurs and leads to harmful side effects, especially with prolonged treatment (Hikayati .et al., n.d.). According to Riskesdas in (Ministry of Health of the Republic of Indonesia, 2021) the prevalence of hypertension in Indonesia is 34.1%, an increase compared to the prevalence of hypertension in Riskesdas in 2013 of 25.8%. The prevalence of hypertension in 2020 was obtained from Riskesdas data in 2018 where the prevalence rate increased from 34.5% to 39.6%. Hypertension affects approximately 22% of the global population (Ismi Rohmani, 2021). The African continent reports the highest incidence, with 27%, while the Americas have the lowest, at 18%. Southeast Asia ranks third, with a hypertension prevalence of 25% (Septiawati Jabani et al., 2021).

To control blood pressure and so as not to cause damage to other organs and can lead to other complications such as heart failure, stroke, kidney disorders, retinopathy (retinal damage), peripheral vascular disease, and nervous system disorders. In addition, the success of therapy also requires high patient compliance in consuming drugs, low compliance with medication can be a trigger for failure in controlling the patient's blood pressure, the more obedient the patient is when consuming medication, the better the blood pressure will be controlled. In addition to adherence to medication that can be done by hypertensive patients, hypertensive patients must also pay attention to their lifestyle such as diet, sports activities and smoking habits that must be maintained. Adherence to diet control also greatly determines blood pressure to remain stable (Indawati et al., 2020) . Knowledge that must be possessed by a person with hypertension includes knowing the meaning of hypertension, things that can increase the risk of hypertension, symptoms that will appear and accompany increasing hypertension, and the importance of regular treatment and according to the recommended dosage. Several elements that can influence the extent of hypertension risk are age, genetic factors, levels of physical activity, stress, and adherence to prescribed medications (Anshari, 2019).

Compliance in undergoing treatment for hypertensive patients has a very important role, because by maintaining consistency in taking medication, the blood pressure of hypertensive patients can be controlled, so that the risk of long-term damage can be minimized. Uncontrolled blood pressure can disrupt the functioning of vital organs involved in regulating blood pressure, including the heart, kidneys, and brain (Depkes, 2018). The degree to which individuals with hypertension comply with their prescribed treatment is still below the WHO standard limit (2013) between patients in developing countries, which is 50%. The behavior of taking medication regularly for hypertensive patients can control blood pressure in

hypertensive patients, so it is very important that adherence to taking this medication is carried out by patients with chronic diseases such as hypertension so that the risk of damage to other organs due to hypertension is reduced (Sunaryo, 2024).Up to the present, the issue of patients not adhering to hypertension medication regimens remains a significant concern that requires the focus of all healthcare professionals, including doctors, nurses, and pharmacists (Dinda Meisindy Hapsari, 2023). Adherence refers to an individual's behavior in following the prescribed treatment or therapy based on the recommendations, guidance, or informational materials provided by healthcare providers. The level of compliance plays a crucial role in determining the success of treatment, potentially reaching 100% (Khayudin et al., 2023).

The effectiveness of treatment in individuals with hypertension is determined by various factors, with medication adherence being a crucial element. By consistently following prescribed treatment regimens, hypertensive patients can maintain their blood pressure levels within the recommended normal range (Yunita Fitriyani , 2022). Treatment will provide side effects that are considered annoying, worried about long-term effects and dependence on medication affecting patient compliance (Kendu et al., 2021). The non-compliance of hypertensive patients in taking medication can have very large negative effects, such as the appearance of complications (Netra Wirakhmi & Purnawan, 2021). Consistently following therapy can significantly influence blood pressure, leading to gradual improvements and reducing the risk of complications (Aliyah & Damayanti, 2022). Several factors contribute to medication adherence, such as the individual's educational background, which plays a role in shaping their behavior, particularly in motivating healthier lifestyle choices (Kristiana Anonymous H, 2020). Knowledge, which encompasses all that a person understands based on their own experiences, tends to grow as they go through various life situations and accumulate more insight (Agus Cahyono et al., 2019).

Research conducted by Anwar & Masnina (2019), the findings reveal a connection between medication adherence and blood pressure levels. Participants with high adherence to their prescribed treatment tend to have blood pressure readings within the normal range, whereas those with lower adherence are more likely to experience elevated blood pressure levels (Wahyuni et al., 2023). This study aims to determine the relationship between medication adherence and blood pressure in patients with hypertension by measuring the level of obedience in undergoing treatment and the stability of blood pressure in those suffering from hypertension in the Working area, Kartasura Health Center.

Table 1.
Categorization of Blood Pressure Levels

Category	Systolic mmHg	Diastolic mmHg
Usual	<120 mmHg	<80 mmHg
Mild hypertension	120-139 mmHg	80-89 mmHg
Moderate hypertension	140-159 mmHg	90-93 mmHg
		100-109 mmHg
Severe hypertension	160-179 mmHg	110-119 mmHg
Very Severe Hypertension	180-209 mmHg	120-210 mmHg

METHOD

This research is a quantitative descriptive study, utilizing data collected through a research instrument, specifically a questionnaire, to gather and measure relevant information. This study used an MMAS-8 questionnaire from 8 question items and the researcher modified it to 12 question items used to measure respondents' compliance in taking medication with a sample test of 30 respondents. Data collection on adherence to taking blood pressure lowering drugs in people with hypertension using a questionnaire that has been tested for validity and reliability with the results of 12 valid questions with a reliability value of 0.607. Data

collection was carried out in November - December 2024 at the Kartasura Health Center, Sukoharjo Regency. This study uses descriptive correlational research design, which aims to assess the degree of relationship between two variables, without changing, adding, or manipulating existing data. Using simple random sampling method with 96 respondents as samples.

RESULT

Table 2.
Distribution of frequency and percentage of compliance with taking medication with blood pressure in hypertension patients according to research variables (n= 96)

Respondent characteristics	f	%
Age		
31-40	16	16.7
41-50	42	43.8
51-60	29	30.2
61-70	8	8.3
>70	1	1.0
Gender		
Man	40	41.7
Woman	56	58.3
Education		
SD	16	16.7
JUNIOR	42	43.8
SMA	29	30.2
Diploma III	8	8.3
Diploma IV	1	1.0
Bachelor	2	2.1
Long suffering		
<5 years	79	82.3
>5 years	17	17.7

Based on table 2, it shows that most of the respondents are 41-50 years old, a total of 42 people (43.8%). The most female were 56 people (58.3%). The most respondents with junior high school education were 42 people (43.8%). The longest respondents suffered from hypertension <5 years, a total of 79 people (82.3%).

Table 3.
Distribution of medication adherence with blood pressure (n= 96)

Medication adherence	f	%
Good	6	6.3
Enough	11	11.5
Not enough	79	82.3

Table 3 shows that the respondents in the Work area, Kartasura Health Center are 96 respondents. Based on medication compliance, respondents had good compliance with 6 respondents (6.3%), sufficient 11 respondents (11.5%), and less than 79 respondents (82.3%).

Table 4.
The pattern of blood pressure levels in individuals diagnosed with hypertension (n= 96)

Blood pressure	f	%
Usual	31	32.3
High	65	67.7

Table 5.
An analysis of the correlation between adherence to prescribed medication and blood pressure levels in individuals diagnosed with hypertension

Compliance	Blood pressure						*P-value*
	Usual		High		Total		
	f	%	f	%	f	%	
Good	1	16.7%	5	83.3%	6	100	0.861
Enough	5	45.5%	6	54.5%	11	100	
Not enough	25	31.6%	54	68.4%	79	100	

Table 4 shows that the blood pressure of respondents in the work area, Kartasura Health Center is 96 respondents. Based on the blood pressure of normal respondents, 31 respondents (32.3%), high as 65 respondents (82.3%).

Based on data analysis, Table 5 was shown that the majority of patients with normal blood pressure adherence to medication were good compliance with 1 respondent (16.7%), sufficient 5 respondents (45.5%), less than 25 respondents (31.6%). Meanwhile, the majority of patients with high blood pressure had good adherence to medication 5 respondents (83.3%), enough 6 respondents (54.5%), less than 54 respondents (68.4%). The statistical analysis revealed a p-value of 0.861, indicating that there is no substantial correlation between compliance levels and blood pressure.

DISCUSSION

Medication compliance

The results of the study show that most of the drug adherence levels are in the low category. Non-compliance with taking hypertension medication is caused by several factors, including respondents feeling that they have improved so that they stop taking medication without consulting and the appearance of boredom because they have to take medication every day (S. Wahyuni et al., 2023)**.** The key factor in managing elevated blood pressure is consistent adherence to hypertension medication. Patients who strictly follow their prescribed treatment are more likely to experience stabilized blood pressure levels. On the other hand, failure to adhere to the medication regimen is a significant cause of treatment failure, highlighting the lack of a clear connection between adherence to medication and the stability of blood pressure in individuals with hypertension (Putri, 2024)This is in line with what was found in this study, table 3 explains that as many as 79 respondents (82.3%) were less compliant in undergoing treatment, 11 respondents (11.5%) were quite compliant, 6 respondents (6.3%) were good at taking medication, if the symptoms felt had improved. In addition, patients who do not comply with taking medication believe that if their blood pressure drops, their pain will be cured, so they do not consume the drug again. In this study, most of the respondents in the low compliance category because they tend to forget to take medication so that they experience obstacles to be able to obey in taking medication.

Failure to comply with hypertension treatment is a public health problem that poses a considerable risk of complications, disability, and death. According to previous research. Low adherence is substantially associated with uncontrolled hypertension (Turki, 2024). In hypertensive patients, the administration of antihypertensive drugs has an important role in controlling the patient's blood pressure so that it remains stable. In addition, the administration of antihypertensive drugs can also prevent the incidence of heart failure by 50% and reduce the incidence of stroke by 35-40% (Adzikya, 2022).

Blood pressure

The survey results indicated that 65 respondents (67.7%) had high blood pressure, while 31 respondents (32.3%) had normal blood pressure. Among the respondents, the majority were female, with 56 individuals (58.3%), and a smaller proportion were male, totaling 40 respondents (41.7%).Blood pressure refers to the force exerted by blood against the walls of blood vessels, a result of the pressure created when blood is pumped from the heart into the arteries. The pressure varies depending on factors such as the condition of the blood vessels and heart rate. Blood pressure reaches its peak during ventricular contraction (systolic pressure) and its lowest point when the ventricles are relaxed (diastolic pressure). In cases of hypertension, the blood pressure increases due to excessive force being used to push blood through the blood vessels. When analyzed by gender, the predominant group of respondents

were female. Gender plays a crucial role in influencing blood pressure levels and its regulation (Anita, 2024).

Hypertension has various risk factors that are closely related to the occurrence of the disease. There are several contributing factors to the development of hypertension, such as genetic predispositions, ethnicity, age, gender, smoking habits, obesity, and stress (Wati et al., 2023). Additionally, lifestyle choices like poor and unbalanced nutrition, continued smoking, and ongoing stress are key elements that can lead to a recurrence of high blood pressure. The incidence of hypertension is also influenced by other risk factors that can cause a person to suffer from hypertension, such as sleep patterns, salt intake, physical activity levels, Stress levels, and smoking behavior (Ananda et al., 2024).High blood pressure leads to an increased risk of myocardial infarction, stroke, kidney damage, and micro and macrovascular diseases. The main factor that prevents adequate blood pressure control is to be adhered to the treatment (Montalvo et al., 2020). In a study (ardiyansyah, M, 2023)by the Indonesian Ministry of Health (2018) stated that not all hypertensive patients feel symptoms because hypertension often arises without showing symptoms. However, in general, symptoms will be felt by patients if they have experienced complications in hypertensive patients such as dizziness, headaches, heart palpitations, restlessness, and fatigue easily.

The relationship between medication adherence and blood pressure in hypertensive patients

When collecting data from respondents, the researcher categorized respondents as taking medication if during data collection respondents stated that they routinely took blood pressure-lowering drugs every day without interspersed with other treatments. 6 respondents took medication obediently well, 11 respondents took medication quite compliantly, and 79 respondents were less obedient to take medication. Prior to conducting the Spearman Rank Test, a cross-tabulation analysis was performed to assess the correlation between medication adherence and blood pressure levels in patients with hypertension. Cross-tabulation of medication adherence reviewed from medication adherence shows a tendency that hypertension who is adhered to medication and who is less compliant both have normal blood pressure. The results of cross tabulation between medication adherence and medication adherence in table 4 show that respondents have good medication adherence as many as 6 people including 1 normal (16.7%) 5 high (83.3%), respondents with sufficient adherence as many as 11 people including 5 normal (45.5%) 6 high (54.5%), while respondents who have a low level of compliance as many as 79 people including 25 normal (31.6%), 54 high (68.4%).

The results of the bivariate analysis test between medication adherence and blood pressure using *the Rank Spearmen* test showed a p *value* of 0.861. Based on these results, the significance value is greater than 0.05 (>0.05) which means that the null hypothesis is accepted. The decision taken is that adherence to taking medication with blood pressure does not have a significant relationship. These results are the same as the research conducted by (Netra Wirakhmi & Purnawan, 2021), where in the study insignificant results were obtained related to medication adherence to blood pressure. As many as 52.8% of the 89 patients in the study had low adherence.

CONCLUSION

This research intends to examine the connection between medication adherence and blood pressure levels among hypertensive patients within the service area of Kartasura Sukoharjo Health Center. According to the findings and analysis, the majority of participants in this study were women, with 56 respondents, and the age group of 41-50 years comprised 42 respondents. Most of the participants had completed junior high school, and 79 respondents had been living with hypertension for less than 5 years. The level of medication adherence at

Kartasura Health Center indicated that most patients were not fully compliant. Among hypertensive patients, 31 respondents had normal blood pressure, while 65 others exhibited high blood pressure. A bivariate analysis using the Spearman Rank test revealed a p-value of 0.861. Given that the p-value exceeds 0.05, the null hypothesis is accepted, concluding that there is no significant relationship between medication adherence and blood pressure.

REFERENCES

Adzikya, A. (2022). Faktor-faktor Yang Berhubungan Dengan Kejadian Hipertensi Pada Kelompok Lanjut Usia. Journal of Economic Perspectives, 2(1), 1–4. http://www.ifpri.org/themes/gssp/gssp.htm%0Ahttp://files/171/Cardon - 2008 - Coaching d'équipe.pdf%0Ahttp://journal.um-surabaya.ac.id/index.php/JKM/article/view/2203%0Ahttp://mpoc.org.my/malaysian-palm-oil-industry/%0Ahttps://doi.org/10.1080/23322039.2017

Agus Cahyono, E. (2019). Pengetahuan ; Artikel Review. In Jurnal Keperawatan (Vol. 12, Issue 1).

Aliyah, N., & Damayanti, R. (2022). Faktor-Faktor yang Berhubungan dengan Kepatuhan Minum Obat Pasien Hipertensi di Primary Health Care Negara Berkembang : Systematic Review. Syntax Literate: Jurnal Ilmiah Indonesia, 7(5), 107–115. https://jurnal.syntaxliterate.co.id/index.php/syntax-literate/article/view/6999/4359%0Ahttps://jurnal.syntaxliterate.co.id/index.php/syntax-literate/article/view/6999

Amanda, D., & Martini, S. (2020). Hubungan Karakteristik Dan Status Obesitas Sentral Dengan Kejadian Hipertensi Relationship of Characteristic and Status of Central Obesity with The Prevalence Of Hypertension. https://doi.org/10.20473/jbe.v6i1.2018

Ananda, F., Dwi Putra, R., & Hendeastyo, V. S. (2024). Gambaran Kepatuhan Minum Obat, Kontrol Tekanan Darah, Dan Lama Sakit Pada Pasien Hipertensi Derajat I. 01(01), 1–10.

Anita. (2024). Hubungan Kepatuhan Minum Obat Hipertensi Dengan Perubahan Tekanan Darah Pada Lansia Di Posyandu Lansia. Keperawatan, 52–61.

Anshari, Z. (2019). Komplikasi Hipertensi Dalam Kaitannya Dengan Pengetahuan Pasien Terhadap Hipertensi Dan Upaya Pencegahannya. In Jurnal Penelitian Keperawatan Medik (Vol. 2, Issue 2). http://ejournal.delihusada.ac.id/index.php/JPKM

ardiyansyah, M, A. M. (2023). Pengembangan Ilmu Dan Praktik Kesehatan Hipertensi. 2(April), 1–14. https://www.ncbi.nlm.nih.gov/books/NBK558907/

Cahyati. (2021). Hubungan Tingkat Pengetahuan Terhadap Kepatuhan Pengobatan Pada Pasien Hipertensi Di Desa Dalisodo Kecamatan Wagir Kabupaten Malang. Universitas Islam Negeri Maulana Malik Ibrahim, 48–139, 139.

Depkes. (2018). Hubungan Pengetahuan Penderita Hipertensi Tentang Hipertensi Dengan Kepatuhan Minum Obat Antihipertensi Di Wilayah Kerja Puskesmas Kampa Tahun 2019. Jurnal Ners, 3(2), 97–102. http://journal.universitaspahlawan.ac.id/index.php/ners

Dewi Ayuningtyas. (2022). Hubungan Tingkat Pengetahuan Pasien Hipertensi Terhadap Kepatuhan Minum Obat Antihipertensi Di Rumah Sakit Mulyasari Jakarta Utara.

Dinda Meisindy Hapsari, N. H. , S. (2023). Hubungan Dukungan Keluarga Dengan Kepatuhan Minum Obat Dan Kejadian Kekambuhan Pada Pasien Hipertensi Di Klinik Al-Syafi Winongan.

Hikayati., Rostika Flora, S. P., Flora, R., & Purwanto, S. (2020). penatalaksanaan non farmakologis terapi komplementer sebagai upaya untuk mengatasi dan mencegah komplikasi pada penderita hipertensi primer di kelurahan indralaya mulya kabupaten ogan ilir.

Indawati, I. I., Agustiningsih, N., & Fikriana, R. (2020). Kepatuhan Minum Obat Dapat Mengontrol Tekanan Darahtinggi Pada Penderita Hipertensi. Jurnal Citra Keperawatan, 8(2), 101–108. https://doi.org/10.31964/jck.v8i2.143

Ismi Rohmani. (2021). Prevalensi Dan Faktor Risiko Hipertensi Derajat 2 Di Wilayah Kerja Puskesmas Poasia Kota Kendari. In Nursing Update (Vol. 12, Issue 4). https://stikes-nhm.e-journal.id/NU/index

Kendu, Y. M., Qodir, A., Apryanto, F., Widyagama, S., & Malang, H. (2021). Hubungan Self-Efficacy Dengan Tingkat Kepatuhan Minum Obat Pada Penderita Hipertensi. In Media Husada Journal of Nursing Science (Vol. 2, Issue 1). https://mhjns.widyagamahusada.ac.id

Khayudin, B. A., Zainal Abidin, A., & Firdaus, Z. (2023). Hubungan Kepatuhan Minum Obat Hipertensi Dengan Tekanan Darah Lansia Penderita Hipertensi Di Desa Karangsono. In Journal of Health Science Leksia (JHSL) (Vol. 1, Issue 1). https://jhsljournal.com/index.php/ojs/

Krisma Prihatini, & Ns. Ainnur Rahmanti. (2021). Penerapan Terapi Relaksasi Autogenic Terhadap Penurunan Insomnia Pada Pasien Hipertensi Di Kota Semarang. Jurnal Rumpun Ilmu Kesehatan, 1(3), 45–54. https://doi.org/10.55606/jrik.v1i3.39

Kristiana Pudji H. (2020). Hubungan Tingkat Pengetahuan Dengan Tekanan Darah Pada Penderita Hipertensi.

Leonora. (2023). Faktor Risiko Kejadian Hipertensi Pada Usia 35-50 Tahun Di Wilayah Kerja Puskesmas Siwalima Kabupaten Kepulauan Aru. 5, 1–14. https://www.ncbi.nlm.nih.gov/books/NBK558907/

Montalvo, P. L., Flores, P. B., Mantolan, A. E., Bordoy, J. P., Leiva, A., & Forteza, P. D. A. (2020). The Medichy estudo. 17(e 19769), 1–7.

Netra Wirakhmi, I., & Purnawan, I. (2021). Hubungan Kepatuhan Minum Obat Dengan Tekanan Darah Pada Penderita Hipertensi. In Jurnal Ilmu Keperawatan dan Kebidanan (Vol. 12, Issue 2).

Noveralin, B. A. (2023). Hubungan Lama Menderita Hipertensi Dengan Kejadian Nyeri Tengkuk Di Puskesmas Boja II. http://repository.unissula.ac.id/id/eprint/30185

Putri, N. (2024). the Relationship Between Medication Adherence and Blood Pressure in. 18(1), 30–37.

Septiawati Jabani, A., Kusnan, A., & Made Cristian, I. B. (2021). Prevalensi Dan Faktor Risiko Hipertensi Derajat 2 Di Wilayah Kerja Puskesmas Poasia Kota Kendari. In Nursing Update (Vol. 12, Issue 4). https://stikes-nhm.e-journal.id/NU/index

Sunaryo, S. H. F. (2024). Gambaran Perilaku Kepatuhan Berobat Pada Lansia Penderita Hipertensi Di Puskesmas Sleman. Jurnal Kesehatan Masyarakat, 17(1), 26–31.

Turki, F. (2024). Medication Adherence , Blood Pressure Control , Knowledge , Self-care and Self-efficacy among Tunisian Hypertensive Patients. 1–10. https://doi.org/10.2174/0118744346337256240911114624

Wahyuni, S., Didi Kurniawan, & Oswati Hasanah. (2023). Gambaran Kepatuhan Lansia dalam Mengkonsumsi Obat Antihipertensi di Wilayah Puskesmas Simpang Tiga Kota Pekanbaru. Jurnal Vokasi Keperawatan (JVK), 6(1), 71–76. https://doi.org/10.33369/jvk.v6i1.25242

Wati, N. anjar, Ayubana, S., & Purnowo, J. (2023). Penerapan Slow Deep Breathing Terhadap Tekanan Darah Pada Pasien Hipertensi Di Rsud Jend. Ahmad Yani Metro. Jurnal Cendikia Muda, 3(1), 1–5.

Yunianto. (2022). Hubungan Tingkat Pengetahuan Hipertensi Dengan Sikap Dalam Pencegahan Komplikasi Hipertensi Di Desa Wungu Kecamatan Wungu Kabupaten Madiun. Journal of Economic Perspectives, 2(1), 1–4. http://www.ifpri.org/themes/gssp/gssp.htm%0Ahttp://files/171/Cardon - 2008 - Coaching d'équipe.pdf%0Ahttp://journal.um-surabaya.ac.id/index.php/JKM/article/view/2203%0Ahttp://mpoc.org.my/malaysian-palm-oil-industry/%0Ahttps://doi.org/10.1080/23322039.2017

Yunita Fitriyani, I. S. C. (2022). Indonesian Journal Pharmaceutical and Herbal Medicine (IJPHM) Tingkat Kepatuhan Minum Obat Anti Hipertensi Di Apotek Sejahtera Medika.