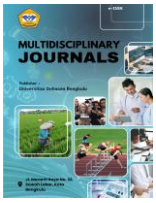

Multidisciplinary Journals
Volume 2 Issue 4, 2025 (197-204)
ISSN (*online*) : **3047-8499**
Homepage : https://jurnalunived.com/index.php/MJ
Doi : https://doi.org/10.37676/mj

Implementation Of Green Grass Jelly To Reduce Blood Pressure In Hypertension Patients At Pasar Ikan Health Center, Bengkulu City, 2025

Della Nurmareta [1], Mariza Arfianti [2], Delta Aprianti [3]
[1,2,3)]Universitas Dehasen Bengkulu
[1] e-mail: nurmaretadella@gmail.com

Received [05-11-2025] Revised [09-12-2025] Accepted [11-12-2025]

Abstract. Hypertension is a major global health problem, affecting approximately 1.28 billion people worldwide (WHO, 2024). In Indonesia, the prevalence of hypertension reached 34.1% in 2023, indicating a significant public health concern. At Pasar Ikan Health Center in Bengkulu City, hypertension cases have shown a marked increase, rising from 1,193 cases in 2020 to 2,307 cases in 2024. If left uncontrolled, hypertension can result in severe complications, including stroke, heart failure, and other cardiovascular diseases. Non-pharmacological interventions, such as the administration of green grass jelly, have been explored as complementary therapies to help manage blood pressure naturally. This study aimed to assess the effectiveness of green grass jelly in reducing blood pressure among hypertensive patients in the working area of Pasar Ikan Health Center, Bengkulu City, in 2025. A descriptive case study was conducted on one hypertensive patient who received 100 grams of green grass jelly daily for seven consecutive days. The patient's blood pressure decreased from 140/90 mmHg before the intervention to 134/80 mmHg on the seventh day, indicating a positive response. These results suggest that green grass jelly is effective in helping to stabilize blood pressure. Therefore, it can be considered a safe, natural, and accessible complementary therapy for managing hypertension

Keywords: Hypertension, Blood Pressure, Green Jelly

INTRODUCTION

Hypertension, or high blood pressure, is a critical global health issue with steadily increasing prevalence. Often referred to as the "silent killer," hypertension usually presents without obvious symptoms in its early stages but can lead to severe complications, including stroke, heart failure, chronic kidney disease, and other cardiovascular disorders if left uncontrolled (Rasnawati et al., 2023; Siswanto et al., 2020). Globally, an estimated 1.28 billion people were affected by hypertension in 2019–2020, and this number is projected to reach 1.6 billion by 2025 (WHO, 2024). In Indonesia, the prevalence of hypertension reached 34.1% in 2023 (Kemenkes RI, 2023). At the regional level, Pasar Ikan Health Center in Bengkulu City has reported a significant increase in hypertension cases over the past five years, from 1,193 cases in 2020 to 2,307 cases in 2024 (Puskesmas Pasar Ikan, 2025), highlighting the urgent need for effective management strategies.

Management of hypertension involves both pharmacological and non-pharmacological approaches. While antihypertensive medications such as diuretics, ACE inhibitors, and beta-blockers are widely used, non-pharmacological interventions, including lifestyle modifications and complementary therapies, are increasingly recognized for their role in blood pressure control. One promising natural intervention is green grass jelly (Cyclea barbata Miers). This

plant contains bioactive compounds, including polyphenols and flavonoids, which act as antioxidants, diuretics, and angiotensin receptor blockers, contributing to the reduction of both systolic and diastolic blood pressure (Mei, 2021; Nur Asiyah Jamil et al., 2021). Several studies have demonstrated that regular consumption of green grass jelly juice can effectively lower blood pressure within a short period (Utami et al., 2022; Fabialismaya et al., 2024; Nawawi, 2019).

Given the high prevalence of hypertension in Pasar Ikan and the accessibility of green grass jelly as a natural, safe, and low-cost complementary therapy, this study seeks to explore its effectiveness in supporting blood pressure management among hypertensive patients in the local community. The findings are expected to contribute to the development of sustainable and accessible complementary interventions for hypertension management.

Based on the issues described, this case study seeks to answer the question: how is the implementation of green grass jelly administration effective in reducing blood pressure among hypertensive patients in the working area of Pasar Ikan Health Center, Bengkulu City? The general objective of this study is to carry out the nursing care intervention and document the results of green grass jelly administration in lowering blood pressure among hypertensive patients in this area. Specifically, the study aims to describe the characteristics of hypertensive patients, including their age, gender, unhealthy dietary habits, and lack of physical activity. In addition, it seeks to assess and document the patients' blood pressure before and after the implementation of nursing care involving green grass jelly administration. By addressing these objectives, the study provides a comprehensive understanding of the effects and practical application of green grass jelly as a complementary therapy for hypertension management in the local community.

LITERATURE REVIEW

Hypertension

Hypertension, defined as systolic blood pressure above 140 mmHg and diastolic above 90 mmHg, is a major non-communicable disease often called the silent disease due to its asymptomatic early stages (Lingga, 2023). It significantly increases the risk of cardiovascular, renal, and cerebrovascular complications if uncontrolled.According to WHO and the International Society of Hypertension, hypertension is classified into optimal, normal, high-normal, and three grades of severity (Sari, 2021). Etiologically, it is divided into primary hypertension, influenced by genetics, high salt intake, obesity, smoking, and alcohol, and secondary hypertension, caused by identifiable conditions such as kidney disorders (Islamy et al., 2023).Risk factors include modifiable factors such as unhealthy diet, physical inactivity, obesity, and stress and non-modifiable factors such as age, gender, and family history (Suarayasa et al., 2023). Pathophysiologically, hypertension results from vascular damage, arterial stiffness, and dysregulated vasoconstriction, affecting the heart, brain, kidneys, and eyes (Syaidah et al., 2021). Management requires both pharmacological and non-pharmacological interventions to reduce blood pressure and prevent complications(Aprianti et al., 2025).

Complications and Management of Hypertension

Uncontrolled hypertension can damage arteries and organs, leading to complications such as stroke, myocardial infarction, heart failure, and kidney disease (Yusetyani et al., 2022). Stroke may occur due to high cerebral pressure, while myocardial infarction results from insufficient oxygen supply to the heart caused by atherosclerosis and ventricular hypertrophy. Prolonged hypertension can also thicken the heart muscle, reducing pumping efficiency and causing heart failure, and impair kidney filtration, leading to toxin accumulation.Management includes non-pharmacological and pharmacological approaches (Kusumawaty et al., 2021).

Lifestyle interventions involve dietary modification, limiting salt, alcohol, and caffeine, maintaining healthy weight, regular aerobic exercise, and stress reduction through relaxation and adequate sleep. Pharmacological treatment is used when lifestyle changes are insufficient or in stage 1–2 hypertension, including diuretics, ACE inhibitors, ARBs, beta-blockers, and calcium channel blockers to reduce blood pressure through vasodilation, fluid removal, and lowered cardiac output.

Blood Pressure Concept and Green Grass Jelly Implementation

Blood pressure measurement is a critical procedure in diagnosing and monitoring hypertension. It is performed using a sphygmomanometer, with results expressed in millimeters of mercury (mmHg). Systolic pressure reflects the force exerted on arterial walls when the heart contracts, whereas diastolic pressure indicates the pressure during cardiac relaxation. To ensure the accuracy of measurements, several factors must be controlled, including the use of an appropriate cuff size, maintaining patient stillness, and ensuring a quiet, comfortable environment. Measurements should be repeated at least twice and averaged to improve reliability and reduce observational error (Utami et al., 2022). Sphygmomanometers commonly used include mercury, aneroid, and digital devices, all of which require adherence to standardized procedures to achieve precise and consistent results.

Green grass jelly (*Cyclea barbata* L. Miers) is a traditional Southeast Asian plant widely recognized for its cooling and therapeutic properties. It contains a range of beneficial nutrients, including carbohydrates, proteins, flavonoids, polyphenols, calcium, and vitamins A and B, which contribute to supporting cardiovascular health and reducing blood pressure (Cahyanti et al., 2024; Aprilia, 2024). Flavonoids in the plant act as natural ACE inhibitors, reducing angiotensin II levels and promoting vasodilation. Meanwhile, polyphenols enhance endothelial function by improving blood vessel elasticity, and calcium supports cardiac muscle performance and fluid balance regulation. These combined bioactive components make green grass jelly a promising complementary therapy for individuals with mild hypertension.

The preparation of green grass jelly involves washing 20 grams of fresh *Cyclea barbata* leaves, mixing them with 150 ml of clean water, and gently massaging or crushing the leaves until the liquid thickens. The mixture is then strained to obtain a smooth extract and left to set into a jelly-like consistency. For therapeutic purposes, patients consume 100 grams of the jelly once daily in the morning for seven consecutive days, with blood pressure monitored regularly before and after the intervention period (Fabialismaya et al., 2024). This simple preparation method and its natural composition make green grass jelly an accessible, affordable, and culturally accepted complementary treatment that can support blood pressure control alongside lifestyle modifications

METHODS

This study employed a descriptive case study design aimed at exploring the effect of green grass jelly (*Cyclea barbata*) on reducing blood pressure in a patient diagnosed with mild hypertension (140–159/90–99 mmHg) within the age range of 45–59 years at Puskesmas Pasar Ikan, Bengkulu City. The case study approach was chosen because it allows for an in-depth examination of the patient's condition, behaviors, and response to the intervention within a real-life clinical context. Prior to participation, the patient provided informed consent and voluntarily agreed to temporarily discontinue the use of antihypertensive medication to ensure the accuracy of the intervention's effect. Eligibility criteria included the absence of severe complications such as kidney failure, stroke, and chronic heart disease, ensuring that the patient was physiologically stable and suitable for a non-pharmacological intervention. The intervention consisted of administering 100 grams of green grass jelly once daily in the morning before

meals for a duration of seven consecutive days, following standardized preparation and consumption procedures to maintain consistency throughout the study period.

Data collection techniques included structured observation, semi-structured interviews, and direct blood pressure measurements. Observation was conducted to monitor the patient's adherence to the intervention protocol, including consumption timing, portion consistency, and potential side effects. Interviews were used to gather detailed information regarding the patient's medical history, lifestyle patterns, dietary habits, family history of hypertension, and other modifiable risk factors that may influence blood pressure. Blood pressure measurements were taken using a calibrated mercury sphygmomanometer before the intervention and immediately after the seven-day intervention period to evaluate physiological changes attributable to the green grass jelly consumption. All measurements followed standard operating procedures to ensure accuracy and reduce measurement bias.

The collected data were analyzed descriptively and presented narratively to provide a clear and comprehensive depiction of changes in blood pressure before and after the intervention. This descriptive approach enabled researchers to explain the patient's response to green grass jelly in a detailed and contextualized manner. Ethical considerations were strictly upheld throughout the study, including obtaining informed consent, ensuring participant anonymity and confidentiality, maintaining fairness in treatment, and securing ethical clearance approval from the appropriate institutional review board. Research instruments utilized in this study included a mercury sphygmomanometer for accurate blood pressure measurement and structured observation sheets to document adherence and physical responses. These instruments enhanced the rigor, reliability, and potential replicability of the study, contributing to the validity of the findings and supporting future research on natural non-pharmacological hypertension management strategies

RESULTS

Blood Pressure Observation Results Before Green Grass Jelly Administration

Table 1 Blood Pressure Results Before Green Grass Jelly Administration

y/Date	Respondent	Blood Pressure	Category
Wednesday, June 25, 2025	Mrs. E	140/90 mmHg	Mild Hypertension

Based on Table 1, the respondent's blood pressure before the green grass jelly intervention on the first day was in Level 1 (mild hypertension) category.

Observation Results of Blood Pressure After Green Grass Jelly Administration

Table 2. Blood Pressure Results After Green Grass Jelly Administration

Day/Date	Respondent	Blood Pressure	Category
Tuesday, July 1, 2025	Mrs. E	134/80 mmHg	Normal

Based on Table 2, the respondent's blood pressure after the green grass jelly intervention on the seventh day was in the Normal category

Blood Pressure Results Before and After Green Grass Jelly Intervention

Before Intervention

Based on the assessment conducted on Wednesday, June 25, 2025, prior to the administration of the intervention, the respondent's blood pressure was recorded at 140/90 mmHg, placing her in the category of Mild Hypertension (Stage 1) (Sari, 2021). During the initial interview, the respondent reported experiencing several symptoms typically associated with

elevated blood pressure, including morning dizziness, episodes of blurred vision, and a general sense of fatigue during routine daily activities. These complaints indicated that her blood pressure had surpassed normal physiological limits, aligning with findings by Lingga (2023), who noted that although hypertension may remain asymptomatic in many individuals, it can also present with manifestations such as headaches, visual disturbances, dizziness, and persistent tiredness.

A number of contributing factors were identified as potential causes of the respondent's elevated blood pressure. The first factor was her limited level of physical activity. The respondent did not participate in any form of structured or routine exercise and generally spent most of her time at home, engaging only in light household tasks such as cooking and washing clothes. This lifestyle pattern is consistent with the explanation by Kusuma et al. (2021), who stated that physical inactivity reduces cardiovascular efficiency, contributes to increased peripheral resistance, and elevates the risk of developing hypertension.

The second major contributing factor was the respondent's dietary pattern, which was characterized by frequent consumption of high salt foods such as salted fish and instant noodles. Additionally, she habitually added extra salt and seasoning during meal preparation, further increasing her sodium intake. Excessive sodium consumption is widely recognized as a significant risk factor for hypertension. According to WHO (2021), high salt intake increases blood volume by promoting water retention, which in turn exerts additional pressure on the arterial walls. Over time, this physiological strain contributes to the development and progression of elevated blood pressure.

Taken together, these lifestyle and dietary behaviors created a substantial predisposition for the respondent to experience hypertension and its associated symptoms. The combination of low physical activity levels and consistently high sodium intake not only elevated her blood pressure but also intensified the clinical manifestations reported prior to the intervention. These findings underscore the importance of lifestyle modification, particularly increased physical activity and reduced sodium consumption, in the management and prevention of hypertension.

After Intervention

Following a seven-day intervention in which the respondent consumed 100 g of green grass jelly (*Cyclea barbata*) each morning before meals, a follow-up blood pressure measurement was conducted on Tuesday, July 1, 2025. The post-intervention assessment indicated a decrease in blood pressure to 134/80 mmHg, which falls within the Normal category. Throughout the intervention period, the respondent experienced a gradual reduction in symptoms previously reported, such as dizziness and fatigue. She also became increasingly accustomed to the taste, texture, and daily consumption routine of the green grass jelly.

Daily monitoring during the intervention focused on several indicators, including physical complaints, digestive comfort, adherence to the consumption schedule, and responsiveness to health education provided. The educational component included information about the potential short-term side effects of green grass jelly, such as mild nausea, temporary changes in appetite, or an unusual earthy taste. These side effects were generally mild and transient, and none were severe enough to interfere with the respondent's adherence to the intervention.

The reduction of 6 mmHg in systolic pressure and 10 mmHg in diastolic pressure is likely related to the presence of multiple bioactive compounds in green grass jelly, including flavonoids, saponins, tannins, and alkaloids. Flavonoids function as potent antioxidants and natural vasodilators, helping to widen blood vessels, enhance blood flow, and contribute to stabilization of blood pressure (Rahmawati, 2021). Saponins and tannins serve as natural diuretics, promoting increased urine output, thereby reducing fluid volume and decreasing cardiac workload (Yuliana, 2022). In addition, the calcium and polyphenol content found in

green grass jelly plays a role in regulating fluid balance and reducing oxidative stress, both of which are recognized contributors to hypertension (Utami et al., 2022).

Although minor complaints such as occasional dizziness and mild bloating were noted during the initial days of consumption, these symptoms diminished as the respondent adjusted to the intervention. Subjective improvements reported by the respondent included a lighter sensation in the body, reduced episodes of dizziness, and enhanced comfort when performing daily activities. These findings align with previous studies that have demonstrated the effectiveness of a seven-day regimen of green grass jelly in lowering systolic blood pressure by approximately 10–12 mmHg in individuals with mild hypertension (Rahmawati, 2021; Yuliana, 2022).

The final evaluation of the intervention confirmed its positive physiological effects, and the respondent expressed willingness to continue the consumption of green grass jelly independently as part of her daily routine. She was encouraged to maintain this habit as long as it remained beneficial, well tolerated, and aligned with her overall hypertension management plan.

CONCLUSION

The assessment of the hypertensive respondent, conducted through direct interviews and observation, revealed several key characteristics associated with elevated blood pressure. The respondent, a 58-year-old woman, demonstrated an unhealthy dietary pattern dominated by high-salt food consumption such as salted fish and instant noodles. She also frequently added excessive salt and seasoning during meal preparation, while the intake of vegetables and fruits remained minimal. These habits are known risk factors that contribute to increased blood pressure. In addition, the respondent reported no routine physical exercise, engaging only in light household activities such as cooking and washing, reflecting a low level of physical activity that may exacerbate hypertension.

Prior to the intervention, the respondent's blood pressure was measured at 140/90 mmHg, placing her in the category of Mild Hypertension (Stage 1). Following a seven-day intervention involving the daily consumption of 100 g of green grass jelly, her blood pressure decreased to 134/80 mmHg, which falls within the normal blood pressure range. This observable reduction indicates a favorable physiological response to the intervention. Overall, the findings suggest that green grass jelly has the potential to contribute to blood pressure reduction in individuals with mild hypertension. Although limited in scope, the results illustrate the possible benefits of incorporating green grass jelly as a complementary dietary approach for managing hypertension.

LIMITATION

This study has several limitations that should be considered when interpreting the results. First, it involved only a single respondent, which limits the generalizability of the findings to the wider population of individuals with hypertension. Second, the intervention with green grass jelly was conducted for only seven consecutive days, making it difficult to assess its long-term effects on sustained blood pressure reduction. Consequently, while the study provides preliminary insights into the potential benefits of green grass jelly for mild hypertension, further research with larger sample sizes and longer intervention periods is needed to confirm and generalize these findings."

REFERENCES

Andriani, I., Murwati, & Fauzi, Y. (2021). Faktor-Faktor yang Berhubungan dengan Kejadian Hipertensi di Wilayah Kerja Puskesmas Telaga Dewa Kota Bengkulu. Universitas Dehasen Bengkulu.

Aprianti, D., Rohani, T., & Az, D. (2025). Analysis Of Risk Factors Affecting Hypertension Disease In The Jayaloka Village Area, Empat Lawang Regency. Jurnal Pengabdian Mandiri, 2(1), 33–36. https://doi.org/10.70963/mandiri.v2i1.657

Aprilia, A. N. (2024). Pengaruh Pemberian Rebusan Daun Cincau Hijau (Cyclea Barbata Miers) Terhadap Penurunan Tekanan Darah Pada Penderita Hipertensi. In Repository Institut Teknologi Sains dan Kesehatan Insan Cendekia Medika Jombang. Institut Teknologi Sains dan Kesehatan Insan Cendekia Medika Jombang.

Cahyanti, F. A., Eskundari, R. D., & Purwanto, A. (2024). Wild Edible Plants as an Alternative Food Source for The Community of Pakis Baru Village, Nawangan, Pacitan. Jurnal Biologi Tropis, 24(2), 352–367. https://doi.org/10.29303/jbt.v24i2.6779

Daulay, D. K. (2022). Asuhan Keperawatan Pada Sistem Kardiovaskuler: Hipertensi Dengan Pemberian Rebusan Daun Binahong Masalah Tekanan Darah. Universitas Aufa Royhan.

Dewi, Y. K., Pratomo, H., & Karjoso, T. (2022). Faktor Sosial dan Budaya yang Berhubungan dengan Kejadian Hipertensi: Literature Review. Media Publikasi Promosi Kesehatan Indonesia (MPPKI), 5(8), 890–898. https://doi.org/10.56338/mppki.v5i8.2483

Fabialismaya, D. D. K., Hudaya, A. P., & Inriyana, R. (2024). Efektifitas Pemberian Cincau Hijau (Premna oblongifolia Merr) dan Rebusan Daun Pandan Terhadap Perubahan Tekanan Darah Pada Penderita Hipertensi. Jurnal Keperawatan Florence Nightingale, 7(1), 246–254. https://doi.org/10.52774/jkfn.v7i1.182

Hardianti. (2020). Efektifitas Edukasi Self-Management terhadap Kontrol tekanan Darah Pada Lansia Dengan Hipertensi: A Systematic Review.

Ina, S. H. J., Selly, J. B., & Feoh, F. T. (2020). Analisis Hubungan Faktor Genetik Dengan Kejadian Hipertensi Pada Usia Dewasa Muda (19-49 Tahun) Di Puskesmas Bakunase Kota Kupang Tahun 2020. Chmk Health Journal, 4(3), 217–221.

Islamy, I. El, Simamora, L., Syahri, A., Zaini, N., Sagala, N. A., & Dwi, A. (2023). Faktor Determinan Kejadian Hipertensi di Desa Sikeben Kecamatan Sibolangit Kabupaten Deli Serdang. Jurnal Ilmiah Universitas Batanghari Jambi, 23(1), 601.

Kemenkes RI. (2023). Laporan Riskesdas 2023 Kementrian Kesehatan Republik Indonesia. Laporan Nasional Riskesdas 2023. Retrieved from

Kurniawan, D., Rekawati, E., & Sahar, J. (2021). Pelayanan Kesehatan Pada Lansia Dengan Hipertensi Di Tingkat Pelayanan Primer : Systematic Review. Community of Publishing in Nursing (COPING), 10(4), 424–435.

Kusnia, R. I., Kusnia, R. I., Aryzki, S., Hidayah, N., & Mukti, Y. A. (2023). Penggunaan Obat Antihipertensi pada Pasien Geriatri yang Mengalami Hipertensi Rawat Jalan di RSUD Ulin Banjarmasin. Jurnal Ilmiah Farmasi Akademi Farmasi, 7(2), 80–93.

Kusumawaty, J., Marliani, H., Sukmawati, I., & Noviati, E. (2021). Upaya Pencegahan Dan Penanggulangan Hipertensi Di Posbindu Rungki Cigembor. Jurnal Pengabdian Kepada Masyarakat, 2(1), 202–205. https://doi.org/10.31949/jb.v2i1.685

Laili, N., Lestari, N., & Heni, S. (2022). Peran Keluarga terhadap Kepatuhan Mengkonsumsi Obat Anti Hipertensi pada Pasien Hipertensi. Jurnal Abdi Masyarakat ERAU, 1(1), 7–18.

Lingga, S. A. (2023). Tingkat Kepatuhan Minum Obat Pada Pasien Hipertensi Di Rumah Sakit Umum Daerah Aceh Singkil. Fakultas Kedokteran, Universitas Islam Sumatera Utara.

Mei, A. (2021). Pengaruh Pemberian Cincau Hijau Terhadap Penurunan Tekanan Darah Pada Lansia Penderita Hipertensi Di Desa Huta Tonga. Jurnal Kesehatan Ilmiah Indonesia (Indonesian Health Scientific Journal), 6(2), 1. https://doi.org/10.51933/health.v6i2.566

Nawawi, I. A. (2019). Pengaruh Perasan Air Daun Cincau Hijau (Cyclea Berbata Miers) Terhadap Tekanan Darah Pada Penderita Hipertensi Di Wilayah Kerja Puskesmas Andalas Padang. Jurnal Kesehatan Medika Saintika, 10(2), 78.

Nur Asiyah Jamil, S., Indarti, S., & sari, R. (2021). Efektifitas Daun Cincau Hijau (Cocculus Orbiculatus) Terhadap Penurunan Tekanan Darah Pada Pasien Hipertensi Effect of Green Grass Jelly Leaves (Cocculus Orbiculatus) on Blood Pressure Among Patients With Hypertension. Jurnal Wacana Kesehatan, 6(2), 80–84.

Putra, S., Risnita, R., Jailani, M. S., & Nasution, F. H. (2023). Penerapan Prinsip Dasar Etika Penelitian Ilmiah. Jurnal Pendidikan Tambusai, 7(3), 27876–27881.

Putra, S., Syahran Jailani, M., & Hakim Nasution, F. (2021). Penerapan Prinsip Dasar Etika Penelitian Ilmiah. Jurnal Pendidikan Tambusai, 7(3), 27876–27881.

Rahmatika, A. F. (2021). Hubungan Kebiasaan Merokok Dengan Kejadian Hipertensi. Jurnal Medika Hutama, 2(2), 706–710. Retrieved from http://jurnalmedikahutama.com

Rasnawati, Syaifuddin, & Fajriansi, A. (2023). Hubungan Antara Pengetahuan Dan Sikap Dengan Kontrol Diet Rendah Garam Pada Penderita Hipertensi. Jurnal Ilmiah Mahasiswa & Penelitian Keperawatan (JIMPK), Vol. 3(No. 4), 151–158.

Sabahiyah, S., Wahyuni, S., Hafizin, M., Ihwan, I., & Akrom, M. (2024). Pembibitan dan Pemanfaatan Daluman (Cyclea Barbata Miers) Sebagai Alternatif Minuman Sehat di Dusun Karang Anyar Timuk Desa Mamben Lauk. Jurnal Pengabdian Pendidikan IPA Kontekstual, 2(2), 22–28. https://doi.org/10.29303/jppik.v2i2.625

Sari, D. (2021). Klasifikasi Tekanan Darah. Jurnal Pengembangan Ilmu dan Praktik Kesehatan.

Siska, D. (2022). Asuhan Keperawatan Gerontik Pada Ny.W Dengan Pemberian Rebusan Daun Cincau Hijau Untuk Menurunkan Tekanan Darah Di Wilayah Kerja Puskemas Sei. Pancur Kota Batam Tahun 2021. Zahra: Journal of Health and Medical Research, 2(1), 33–41. Retrieved from https://adisampublisher.org/index.php/aisha/article/view/85

Siska Hiswari, E. P. (2020). Modul Sistem Sirkulasi Pada Manusia. Kementerian Pendidikan Dan Kebudayaan Direktorat Pembinaan SMA, 1, 7–8. Retrieved from

Siswanto, Y., Widyawati, S. A., Wijaya, A. A., Salfana, B. D., & Karlina. (2020). Hipertensi pada Remaja di Kabupaten Semarang. JPPKMI : Jurnal Penelitian Dan Pengembangan Kesehatan Masyarakat Indonesia, 1(1), 11–17.

SKI, S. K. I. (2023). Survey Kesehatan Indonesia Tahun 2023, 1–68.

Suarayasa, K., Ilham Hidayat, M., & Gau, R. (2023). Faktor Resiko Kejadian Hipertensi Pada Lansia (Risk Factors of Hypertension in Elderly). Jurnal Medical Profession (MedPro), 5(3), 253–258.

Syaidah Marhabatsar, N., & Sijid, A. (2021). Review: Penyakit Hipertensi Pada Sistem Kardiovaskular. Prosiding Biologi Achieving The Sustainable Development Goals With Biodiversity In Confroting CLimate Change, 7(1), 72–78.

Utami, A. R., Irawati, H. R., & Djupri, D. R. (2022). Pengaruh Pemberian Air Perasan Daun Cincau Hijau Terhadap Penurunan Tekanan Darah pada Penderita Hipertensi. Journal of Nursing and Health Science, 1(3), 98–102. https://doi.org/10.58730/jnhs.v1i3.47

Yusetyani, L., Inayah, A. F., & Asmiati, E. (2022). Pemberdayaan Masyarakat dalam Mencegah Komplikasi Hipertensi dengan Metode DAGUSIBU Obat-Obat Antihipertensi. JPPM (Jurnal Pengabdian Dan Pemberdayaan Masyarakat), 5(1), 145.

Zaim Anshari. (2020). Komplikasi Hipertensi Dalam Kaitannya Dengan Pengetahuan Pasien Terhadap Hipertensidan Upaya Pencegahannya. Jurnal Penelitian Keperawatan Medik, 2(2), 2