

DOI : <http://dx.doi.org/10.70111/hg4203>
Submitted : January, 17 2026
Reviewed : January, 27 2026
Accepted : March, 9 2026

Module to Support Self Care Behavior in Hypertension Patients in The Community: A Case Management Study

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ABSTRACT

Hypertension is a non-communicable disease that is a major risk factor for stroke, which remains a leading cause of morbidity and mortality. This study aims to determine the effectiveness of nursing care through the use of a stroke prevention module in strengthening self-care behaviors in hypertensive patients in the community. This case study was conducted in Tuliskriyo Village, Sanankulon District, Blitar Regency, involving four hypertensive patients. Data were collected through nursing assessment, physical examination, and vital sign measurement, followed by nursing interventions including pain management using Benson relaxation techniques and health education using a stroke prevention module based on self-care behavior. This case management involved four hypertensive patients and describes observed clinical and behavioral changes after nursing interventions. The results showed that all patients experienced acute pain and knowledge deficits at baseline. After three days of intervention, there was a reduction in headache intensity, an improvement in vital signs, increased patient knowledge, and better adherence to antihypertensive medication and healthy lifestyle behaviors. The findings indicated that the application of a stroke prevention module effectively enhanced self-care behavior and supported improved clinical outcomes in hypertensive patients. This approach was used as an effective community-based nursing strategy to prevent stroke complications in patients with hypertension.

Keywords: hypertension; stroke prevention; self-care behavior; nursing care; community nursing

Background

According to data (WHO) in 2023, the most common diseases in the world are non-communicable diseases or abbreviated as PTM (1). Based on global data, deaths due to non-communicable diseases (NCDs) in the world reach 17.9 million people per year, the majority are caused by cardiovascular disease. The three main types of PTM that are the highest causes of death in Indonesia include stroke, which contributes 21.1% of that figure (2). Causing the problem of stroke to become increasingly important and urgent (3). Several factors can influence the incidence of stroke, including age, gender, genes, race, hypertension, hypercholesterolemia, diabetes mellitus, smoking, atherosclerosis, heart disease, obesity, alcohol consumption, stress, socioeconomic status, poor diet, lack of physical activity, and use of birth control pills. However, of the many factors contributing to stroke, hypertension significantly influences the incidence of stroke (4).

According to WHO 2023, hypertension is one of the most prevalent non-communicable diseases in Indonesia. Hypertension is a leading cause of premature death worldwide. This is the basis for WHO's global target for non-communicable diseases, which is to reduce the prevalence of hypertension by 33% between 2010 and 2030 (1).

Hypertension is called “the silent disease or the silent killer” because sufferers are unaware they have it. Uncontrolled hypertension can lead to dangerous complications (5). High blood pressure increases the heart's workload, damages artery walls, and increases the risk of atherosclerotic plaque

formation. Hypertension can accelerate the hardening of artery walls and lead to the breakdown of fat in smooth muscle cells, thus accelerating the process of atherosclerosis (6).

There is a relationship between hypertension and stroke incidence. Found that individuals with hypertension have a much higher risk of stroke than those with normal blood pressure (6). According to the data SKI (Indonesian Health Survey) 2023, East Java has the highest prevalence of hypertension based on measurement results in the population aged ≥ 15 (32.8%) (7) According to the Indonesian Ministry of Health, 2019b, of the prevalence of hypertension of 34.1%, it is known that 8.8% were diagnosed with hypertension and 13.3% of people diagnosed with hypertension did not take medication and 32.3% did not take medication regularly (8).

Hypertension management is important to prevent stroke by controlling risk factors, one of which is self-care. Self-care behavior in hypertension sufferers can optimize disease control, including adhering to antihypertensive medication, maintaining a healthy diet, such as a low-salt diet, engaging in sufficient physical activity, not smoking, and not consuming alcohol. Self-care behavior in adults with hypertension is reported to be quite low; patients often do not want to follow recommendations to change their behavior. Self-care behavior is influenced by various factors, including race, the availability of blood pressure monitors at home, and the patient's medical history, especially those with a history of obesity. Other contributing factors include the availability of a conducive environment for physical activity, a person's level of knowledge about their condition, and their perception of the severity of the disease (9). Lack of self-care management in hypertension sufferers is considered normal, even though this can potentially lead to complications in hypertension sufferers (10).

Previous research in 2022 in Tuliskriyo Village, Blitar Regency, found that 80% of the villagers in the village had a low-risk risk of cardiovascular disease in the next 10 years. However, based on the assessment of stroke risk factors, hypertension sufferers still do not adopt a healthy lifestyle, as evidenced by the low level of adherence to medication and self-care practices. Therefore, hypertension control in the community is still not optimal. Efforts to increase public awareness are needed by providing a stroke prevention module as a learning tool and to broaden the knowledge of both the community and cadres. The module was chosen as a solution in providing Health Education because it can improve the quality of the learning process and can provide clear and comprehensive information to readers. The stroke prevention module for hypertension patients provides information on how to manage stroke prevention by implementing self-care behaviors. Increasing awareness of the risks and implementing preventive measures, it can be hoped that hypertension levels can be controlled, thereby reducing the burden of disease and improving the overall quality of life of the community (11). However, the application of stroke prevention modules based on Self Care Behavior in community nursing care practices is still rarely reported, especially in the context of case management at the village level. This study aims to determine the effectiveness of nursing care implementation in hypertensive patients through the use of a stroke prevention module to strengthen self-care behaviors. Specifically, this study aims to analyze the care process for hypertensive patients, including nursing assessment, establishing nursing diagnoses, planning interventions, implementing, and evaluating the outcomes of care provided.

Methods

This case management was conducted in Tuliskriyo Village, Sanankulon District, Blitar Regency. The research design used a descriptive case study with a nursing care approach. The stages included nursing assessment, nursing diagnosis, nursing intervention, nursing implementation, and nursing evaluation. The study was conducted on four hypertensive patients. Assessment data were analyzed to determine nursing problems and establish nursing diagnoses, followed by planning nursing actions. The implementation of the nursing plan was carried out by providing education using a stroke prevention module given to Hypertension patients to improve their knowledge and self-care behavior. The success of nursing care is assessed from the reduction in pain felt by the patient using the VAS (verbal analysis scale) pain scale and the reduction in blood pressure levels based on WHO.

Results

Based on the results of the implementation of nursing care on four hypertension patients in

Tuliskriyo Village, it was obtained that all clients had relatively homogeneous demographic characteristics and a history of uncontrolled hypertension, accompanied by the main complaint of headache and neck pain. The results of the assessment showed a lifestyle that does not support hypertension control, such as consumption of foods high in salt and fat, smoking habits, drinking coffee, and low compliance with taking medication. The nursing diagnoses found in all clients were acute pain and knowledge deficit. The nursing interventions provided included pain management with non-pharmacological techniques and health education using a stroke prevention module to improve knowledge and self-care behavior. Evaluation over three days showed a decrease in pain intensity until the pain complaints were resolved in all clients, accompanied by improvements in vital signs. In addition, there was an increase in knowledge and changes in client behavior, which was characterized by increased compliance in taking antihypertensive medication, understanding of hypertension risk factors, and awareness of the importance of managing a healthy lifestyle as a behavioral change assessed based on observations and subjective reports of patients

Table 1. Respondent Demographic Data

Demographic data	Frequency
Genre	
Man	3
Woman	1
Age	
Young adults (20-39 year)	1
Middle adulthood (40-59 year)	2
Early elderly (60-79 year)	1
Family history of disease (hypertension)	4
History of medication	
Routine	0
Not routine	4
Nutritional patterns and metabolism	
High salt < 5gr/day	4
Higt fat	4
Smoking	3
Coffee	3
Physical activity	
Low physical activity	3
High physical activity	1

Based on the table 1, the distribution of patients based on gender is predominantly male, with 3 patients. The distribution of patients based on age is mostly in the middle adult category, with 2 patients. Based on medical history, all patients have a history of hypertension. Based on family history, all patients have a family history of hypertension, with 4 patients. Based on whether or not they regularly take hypertension medication, all patients do not regularly take hypertension medication. Based on nutrition, all patients consume excess salt > 5 grams/day and consume fat, with 4 patients, while the majority of patients like to consume cigarettes and coffee, with 3 patients. Based on physical activity, the majority of patients do light activities, with 3 patients.

Table 2. Pain level

Pain level							
Before				After			
Patient 1	Patient 2	Patient 3	Patient 4	Patient 1	Patient 2	Patient 3	Patient 4
low	Low	Medium	Low	No pain	No pain	No	No pain

pain

Based on table 2, before nursing care was given, it was found that out of 4 patients, 3 experienced mild pain, 1 moderate pain, after nursing care was given, the evaluation results showed that out of 3 patients who previously experienced mild pain, they no longer felt pain and one patient who experienced moderate pain felt that their pain had reduced to mild. The pain evaluation measuring tool used the VAS scale (verbal analysis scale).

Table 3. Blood Pressure

Blood Pressure							
Before				After			
Patient 1	Patient 2	Patient 3	Patient 4	Patient 1	Patient 2	Patient 3	Patient 4
Grade 2	Grade 2	Grade 3	Grade 2	Normal	Normal	Grade 1	Normal

Based on table 2, before nursing care was given, it was found that out of 4 patients, 3 had stage 2 hypertension, 1 had stage 3 hypertension, after nursing care was given, the evaluation results showed that 3 patients who previously had stage 2 hypertension experienced a decrease in blood pressure to normal and one patient who had stage 3 hypertension decreased to stage 4. The classification of hypertension stages used in the nursing care evaluation was based on WHO. Normal values are if systolic blood pressure is <120 mmHg and diastolic <80 mmHg, Pre-hypertension is if systolic blood pressure is 120-139 mmHg and diastolic 80-89 mmHg, while grade 1 hypertension is if systolic blood pressure is 130-139 mmHg and diastolic blood pressure is 90-99 mmHg, grade 2 is if systolic blood pressure is >160 mmHg and diastolic >100 mmHg.

Discussion

Based on the results of the assessment of four hypertension patients, it was found that the patients' ages ranged from 35 to 65 years. One risk factor for hypertension is age, where the risk increases with age due to decreased blood vessel elasticity and increased arterial stiffness. These physiological changes cause blood vessels to narrow, leading to increased blood pressure, especially in older adults. However, hypertension can also occur at a young age, influenced by unhealthy lifestyle factors and a family history. Therefore, hypertension can persist for a long time if not properly managed.

The study results showed that the majority of hypertension patients were male (three patients), while one patient was female. This finding aligns with research Elisa dkk, most men are at risk of developing hypertension (12). Women have the hormone estrogen which works as a protective effect to maintain elasticity and regulate blood pressure, but after menopause estrogen levels decrease drastically, thus increasing the risk of hypertension in people over 45 years of age (13). Men are at greater risk of developing hypertension because men have unhealthy lifestyles such as smoking.

Based on the assessment, all patients complained of headaches radiating to the back of the head or nape of the neck. One of the common signs and symptoms of hypertension is headache, caused by increased blood pressure and blood flow to the brain, which, in turn, leads to increased intracranial pressure. This condition can lead to constriction of blood vessels, which is the primary cause of headaches(14).

The results of the study showed that all patients had a family history of hypertension. There was a correlation between hypertension and family history in individuals with hypertension (15). The risk of hypertension due to hereditary factors is a non-modifiable risk factor, but the risk of

hypertension can be minimized by adopting a healthy lifestyle and controlling other risk factors.

Based on the study results, all patients were not taking their antihypertensive medication regularly and tended to only take it when experiencing symptoms such as dizziness or neck tightness. Research conducted by Petrovitch found that hypertension influences the incidence of stroke. The longer hypertension is left untreated, the higher the stroke rate (16). Blood pressure control is an important factor, by ensuring compliance with treatment, where the more compliant the patient is in taking medication as recommended, the better the blood pressure is controlled and the lower the risk of hypertension complications.

The study results showed that all patients had unhealthy diets, including foods high in salt, coconut milk, and fat, as well as smoking and excessive coffee consumption. Increased blood volume and blood pressure are caused by high sodium intake (17). Meanwhile, excessive fat consumption can cause blood vessels to become blocked because there is fat attached to the walls of the blood vessels. This condition causes the heart to pump more blood pressure which results in increased blood pressure (18). In coffee, coffee contains caffeine which can cause an increased heart rate, thus causing blood pressure. Meanwhile, cigarettes can also increase the chance of being diagnosed with hypertension because the nicotine and tar content can cause atherosclerosis, thereby narrowing blood flow, which results in the heart working harder (19).

Based on the study, most patients had low levels of physical activity, while only one patient engaged in vigorous activity. Insufficient physical activity can cause an increased heart rate and the heart's workload in pumping blood, thus contributing to increased blood pressure (19). This research is in accordance with previous research which stated that there is a relationship between physical activity and the incidence of hypertension (20). People who don't exercise tend to have a higher heart rate. This causes the heart muscle to work harder with each contraction, which can lead to high blood pressure. Most of the patients engaged in light physical activity because the majority of the study participants were elderly, so their physical activity was limited to light activities.

Based on the results of the assessment of four hypertensive patients, two identical nursing diagnoses were found: acute pain and knowledge deficit. The diagnosis of acute pain was established in all patients due to complaints of headache radiating to the nape of the neck and shoulders, accompanied by increased blood pressure and pulse rate. Subjective findings in the form of complaints of headache and nape of the neck were supported by objective data in the form of blood pressure above normal values, thus meeting the diagnostic criteria for acute pain as defined in the Indonesian Demographic and Health Survey (IDHS), namely an unpleasant sensory experience with sudden or gradual onset and a duration of less than three months (21). Furthermore, all patients experienced a knowledge deficit, characterized by a lack of understanding of hypertension, non-adherence to treatment recommendations, and misperceptions about hypertension management. This condition is in accordance with the definition of knowledge deficit according to SDKI (Indonesian nursing diagnosis standards), namely the lack of information related to a particular topic, in this case regarding hypertension and efforts to prevent its complications (21).

In preparing nursing interventions for patients, researchers use the Indonesian Nursing Intervention Standards (22). Based on the intervention table, the interventions determined for the four patients were to provide health education in the form of a stroke prevention module by implementing Self Care Behavior and pain management.

Pain management with code I.08238 is one of the actions given to patients during the implementation in the form of training in a non-pharmacological pain reduction approach using the Benson Technique. One simple relaxation therapy that can lower blood pressure and is easy to implement is the Benson relaxation technique, which is a combination of the relaxation response technique with an individual's belief system or faith factor (23). The determination of Benson therapy to overcome pain in this case study is in line with the case study conducted, which stated that Benson relaxation can reduce the intensity of headaches in hypertension sufferers (24).

The health education intervention, coded 1.12384, is one of the activities undertaken to increase knowledge about the disease. The education provided uses a module on "Stroke Prevention in Hypertensive Patients Using Self-Care Behavior," which explains hypertension, self-care behaviors, how to control blood pressure, and the complications that can occur if blood pressure is not controlled. Following the education, patients are asked several questions to assess their understanding of the material. Educating patients about "Stroke Prevention in Hypertensive Patients Using Self-Care

Behavior" is crucial for improving their understanding of the disease and behaviors related to preventing complications from hypertension.

The implementation of pain management interventions using Benson relaxation techniques and health education using the stroke prevention module is expected to reduce headache levels and improve knowledge and behavior in hypertensive patients. This will minimize the risk of complications, promptly address hypertension complaints and symptoms, and reduce pain, thus improving their quality of life.

In these four cases, all implementation actions were based on interventions planned by the author. This is because the interventions were based on the patient's condition in the field. Implementation was carried out by visiting each home, door-to-door, in Tuliskriyo Village, Blitar Regency. Based on the implementation table, it can be seen that the four hypertensive patients with a nursing diagnosis of acute pain were given pain management implementation using the Benson Relaxation Technique. The results of the implementation given for 3 consecutive days showed that the intensity of pain felt by the patients could be reduced. In theory, the concept of Benson Relaxation is a combination of the relaxation response with elements of faith or prayer according to the individual's beliefs, which creates physical and psychological calm. When individuals perform Benson Relaxation, sympathetic nervous system activity decreases so that stress hormone levels (adrenaline and cortisol) are reduced. This condition results in a more regular heartbeat, vasodilation in blood vessels, and decreased blood pressure (25). This case study result is in line with previous research which concluded that Benson therapy can influence pain intensity in hypertension sufferers and resolve acute pain nursing problems (24). In addition to addressing the acute pain diagnosis, researchers also addressed the knowledge deficit diagnosis by implementing health education modules. The module aims to provide more comprehensive information, including dietary advice that can be applied to daily life and self-care behaviors for hypertension patients. Self-care is one positive approach taken by hypertension patients to optimize their health, control and manage emerging signs and symptoms, prevent complications, and minimize disruption to bodily functions (26). From the two implementations that have been carried out, they are in accordance with the previously determined interventions and there are no gaps.

After the implementation of nursing care, the researcher conducted an evaluation on the hypertensive patient. The evaluation was conducted to see whether the nursing problem had not been resolved, was partially resolved, or had been resolved. The evaluation was conducted using SOAP (Subjective, Objective, Analysis, and Planning). Based on the evaluation table, it can be seen that acute pain nursing problems can be resolved with subjective data of decreased pain intensity, and objective data of decreased blood pressure and pulse. This study was successful in implementing the Benson relaxation technique which can reduce pain intensity. The Effect of Benson Relaxation on Hypertension Patients, which states that if the results of applying Benson relaxation therapy for 3 consecutive days in patients, there is a decrease in the level of headache felt by the patient (24). In addition to reducing pain intensity, the Benson relaxation technique can also lower blood pressure, as evidenced by the decrease in blood pressure in the four patients the following day. Who found a decrease in blood pressure after three days of Benson therapy in hypertensive patients.

So it can be concluded that the problem of acute pain nursing in hypertensive patients can be resolved after implementing nursing in the form of pain management.

Based on the implementation table, it can be seen that the nursing diagnosis of knowledge deficit can be overcome by providing health education in the form of a module "Stroke Prevention in Hypertensive Patients Using Self-Care Behavior" with subjective data, the patient began to fully understand his disease, objective data, the patient can answer questions about the problems faced, the patient shows appropriate behavior and perception. After being given education, the patient also began to apply Self-Care Behavior and take anti-hypertensive medication regularly. So it is very important to provide health education to hypertensive patients to always monitor blood pressure and change their lifestyle to prevent various complications, one of which is stroke because hypertension is a factor that significantly influences the occurrence of stroke (4).

In conducting this research, the researchers recognized several limitations that could impact the results. The first limitation is the relatively small sample size used, making the results unable to be fully generalized to a broader population. The second limitation relates to the relatively short research period, which prevented in-depth and sustained observations of changes or impacts

Conclusions and Recommendations

Based on the results of the nursing care provided, it can be concluded that all hypertensive patients who were the subjects of the study experienced complaints of headaches and a feeling of heaviness in the nape of the neck. The analysis results showed that all patients had the same nursing diagnoses, namely acute pain and knowledge deficit. Nursing plans were prepared according to the priority of the identified problems, and nursing interventions were implemented through an educational approach using a self-care behavior-based stroke prevention module. The evaluation results showed an increase in patient knowledge and changes in behavior following recommendations for taking antihypertensive medication, accompanied by improvements in the patients' clinical conditions.

This research is expected to serve as a reference and enrich the body of nursing knowledge, particularly in implementing self-care behaviors in hypertensive patients through family nursing care. Future researchers are expected to expand the study with a larger number of respondents or more varied methods to obtain more comprehensive results. Furthermore, for respondents and their families, it is hoped that this will increase understanding of the importance of adherence to antihypertensive medication, regular blood pressure control, and adopting a healthy lifestyle through risk factor modification to prevent complications, particularly stroke.

Acknowledgment

The author would like to express his gratitude to all parties who have provided support and contributions in the preparation and implementation of this scientific work. Special thanks are extended to STIKes Patria Husada Blitar, especially the Nursing Professional Study Program, for the academic support provided. The author would also like to thank the lecturers who have guided and provided input during the process of preparing this report. In addition, the author expresses appreciation to the village government, health cadres, and all patients and their families who have participated voluntarily as respondents and actively involved in the implementation of nursing care. It is hoped that this scientific work will be useful and become a reference in the development of community nursing practice, particularly in efforts to improve self-care behavior in hypertensive patients.

References

1. Wijayanti N, Fauzia N. Pencegahan Penyakit Tidak Menular (PTM): Hipertensi, Kolesterol, Diabetes Melitus, dan Asam Urat. Vol. 5, Journal Of Community empowerment. 2023. <https://doi.org/10.32504/hjce.v5i3.949>
2. Andriani C, Herliani O, Indahsari NK, Masfufatun M. Edukasi Pencegahan Stroke dan Penyakit Jantung Melalui Pemeriksaan Darah di Dupak Surabaya. Jurnal Abdidas. 2024 Feb 1;5(1):39–46. <https://doi.org/10.31004/abdidas.v5i1.881>
3. Safitri W, Safitri W, Rima Agustin W. PENGETAHUAN DENGAN MOTIVASI PENCEGAHAN STROKE PADA PENDERITA HIPERTENSI. Vol. 6, Adi Husada Nursing Journal. 2020. <https://doi.org/10.37036/ahnj.v6i1.160>
4. Husada S, Riview L, Puspitasari PN. Hubungan Hipertensi Terhadap Kejadian Stroke Association Between Hipertension and Stroke Artikel info Artikel history. 2020; Available from: <https://akper-sandikarsa.e-journal.id/JIKSH> <https://doi.org/10.35816/jiskh.v12i2.435>
5. Maulia M, Hengky HK, Program HM, Kesehatan S, Fakultas M, Kesehatan I, et al. ANALISIS KEJADIAN PENYAKIT HIPERTENSI DI KABUPATEN PINRANG Analysis Of The Event Of Hypertension DiseaseIn Pinrang District [Internet]. Vol. 4. 2021. Available from: <http://jurnal.umpar.ac.id/index.php/makes> <https://doi.org/10.31850/makes.v4i3.614>
6. khairuman, Alfarizi, Syifa Zahara, Cut Risi Rayyana, Salwatun Ahzan, Ana Khaira, et al. ANALISIS FAKTOR RISIKO DAN PENCEGAHAN JANTUNG KORONER DAN STROKE: TINJAUAN LITERATUR. 2025 Feb;
7. Arifia N, Djunaedi, Harso AD, Annaja AK, Restuningtyas FR, Yuningtyas K, et al. SURVEI KESEHATAN INDONESIA (SKI). 2023.
8. Iukatiningtyas D, Cahyono EA. HIPERTENSI; ARTIKEL REVIEW. 2023; <https://doi.org/10.56586/pipk.v2i2.272>

9. Safitri D, Arisandi D, Safitri Program Studi Sarjana Keperawatan D, YARSI Pontianak Jl Panglima Stik. Hubungan Self-Care Behavior dan Kecemasan dengan Kejadian Stroke Pada Kelompok Risiko Tinggi di UPT Puskesmas Banjar Serasan Pontianak. *Jurnal Keperawatan Suaka Insan (JKSI)* [Internet]. 2024;9(2). Available from: <https://journal.stikessuakainsan.ac.id/index.php/jksi/index>
<https://doi.org/10.51143/jksi.v9i2.713>
10. Nur M, Oktavisa Denta A, Mulyadi E, Yulia E. Hubungan Self efficacy dengan Self care. *Jurnal Sains dan Teknologi Kesehatan*. 2025;6(1):29–35.
11. Lasmawanti S, Siregar MA, Mhd Adi Setiawan Aritonang, Hanny Ghafira. Hubungan Self Management Behavior dengan Tingkat Kecemasan Pasien Hipertensi. *Jurnal Keperawatan Bunda Delima*. 2025 Jul 31;7(2):48–54.
<https://doi.org/10.59030/jkbd.v7i2.154>
12. Candra A, Santi TD, Yani M, Mawaddah DS. Faktor-Faktor yang Berhubungan dengan Kejadian Hipertensi di Desa Baet Lampuot Aceh Besar. *MEDIA KESEHATAN MASYARAKAT INDONESIA*. 2022 Dec 7;21(6):418–23.
<https://doi.org/10.14710/mkmi.21.6.418-423>
13. Nabila RI, Herlinawati H, Ariyanto S, Ronanarasafa R. Hubungan Jenis Kelamin, Tingkat Pendidikan, dan Indeks Massa Tubuh Dengan Kejadian Hipertensi Pada Lansia di Wilayah Kerja PUSKESMAS Gunungsari Lombok Barat. *Bioscientist : Jurnal Ilmiah Biologi*. 2025 Mar 29;13(1):364. <https://doi.org/10.33394/bioscientist.v13i1.14534>
14. Supriadi FE, Fitri NL, Dewi NR, Dharma AK, Metro W. PENERAPAN SLOW DEEP BREATHING TERHADAP NYERI KEPALA PASIEN HIPERTENSI DI RUANG PENYAKIT DALAM A RSUD JEND. AHMAD YANI METRO THE APPLICATION OF AUTOGENIC RELAXATION AND CANDANA AROMATHERAPY ON BLOOD PRESSURE IN HYPERTENSION PATIENTS IN THE EDUCATION ROOM IN GENERAL HOSPITAL JEND. AHMAD YANI METRO. *Jurnal Cendikia Muda*. 2024;4(4).
15. Firdaniansyah A, Sulaiman L, Fatoni A. Hubungan Pengetahuan, Riwayat Keluarga, dan Status Gizi dengan Kejadian Hipertensi pada Usia Produktif. *MAHESA : Malahayati Health Student Journal* [Internet]. 2025 Dec 1;5(12):5572–86. Available from: <https://ejournalmalahayati.ac.id/index.php/MAHESA/article/view/19831>
https://doi.org/10.33024/m_ahesa.v5i12.19831
16. Dewi Noviyanti Dosen RS, Gizi STIKES PKU Muhammadiyah Surakarta Jl Tulang Bawang Selatan No I, Banjarsari Surakarta K. FAKTOR RISIKO PENYEBAB MENINGKATNYA KEJADIAN STROKE PADA USIA REMAJA DAN USIA PRODUKTIF. Vol. 10. 2013.
17. Anggraini W, Nurman M, Harmia E, Arge W. Faktor-Faktor Risiko Yang Berhubungan Dengan Kejadian Hipertensi Pada Masyarakat Usia 31-54 Tahun Di Desa Sei Tarap Wilayah Kerja UPT Puskesmas Kampa ARTICLE INFORMATION ABSTRACT. 2025.
18. A DA, Sinaga AF, Syahlan N, Siregar SM, Sofi S, Zega RS, et al. FAKTOR - FAKTOR YANG MENYEBABKAN HIPERTENSI DI KELURAHAN MEDAN TENGGARA. *Jurnal Kesehatan Masyarakat*. 2022 Mar 29;10(2):136–47. <https://doi.org/10.14710/jkm.v10i2.32252>
19. Surya Kusuma D, Kartikasari F. AKTIVITAS FISIK, KEBIASAAN MEROKOK, DAN KONSUMSI KOPI DENGAN KEJADIAN HIPERTENSI DI KLINIK ASY-SYIFA DESA JANGGALAN KECAMATAN KOTA KABUPATEN KUDUS. *Jurnal Keperawatan Suaka Insan (JKSI)*. 10(1):2025. <https://doi.org/10.51143/jksi.v10i1.785>
20. Sultan U, Tirtayasa A, Juliana I, Kumaladewi Hengky H, Umar F, Usman U. Analysis of Factors Related to The Incidence of Hypertension In Productive Age (15-59 Years). *Jurnal Gizi Kerja dan Produktivitas*. 2024;5:138–48. <http://dx.doi.org/10.62870/jgkp.v5i1.24602>
21. SDKI DPP PPNI. Standar Diagnosis Keperawatan Indonesia : Definisi dan Indikator Diagnostik, Edisi 1. Jakarta: DPP PPNI. 2018.
22. Aliya Permala Putri, Murniati Murniati, Tri Sumarni. Teknik Relaksasi Benson untuk Menurunkan Tekanan Darah Pasien Hipertensi di RSUD Dr. R. Goenteng Taroenadibrata Purbalingga. *Jurnal Rumpun Ilmu Kesehatan*. 2025 Oct 7;5(3):104–13.

- <https://doi.org/10.55606/jrik.v5i3.5549>
23. Naustion S, Daryaman U. ASUHAN KEPERAWATAN DENGAN PEMBERIAN INTERVENSI TEKNIK RELAKSASI BENSON DENGAN MASALAH KEPERAWATAN NYERI AKUT PADA NY. N DENGAN DIAGNOSA MEDIS HIPERTENSI DI RUANG MAWAR RS PARU dr. H.A. ROTINSULU.
 24. Rosidi A, Studi Profesi Ners P, Tinggi Ilmu Kesehatan Hamzar Lombok Timur S. STUDI KASUS: TERAPI BENSON DALAM MENURUNKAN TEKANAN DARAH PADA LANSIA PENDERITA HIPERTENSI. Vol. 4, Lasalle Health Journal. 2025.
 25. Kamelia S, Safrudin. Hubungan Antara Karakteristik, Pengetahuan, Self Efficacy, Self Care Behavior dan Dukungan Keluarga Pada Penderita Hipertensi di Puskesmas Seroja Bekasi. 2024. <https://doi.org/10.33761/jpkm.v1i2.1411>