

EARLY PREVENTION OF CHRONIC DISEASES THROUGH HEALTH CHECKS AND HEALTHY HEART EXERCISES

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Abstract

Health is a crucial aspect that directly impacts human life, whether consciously or unconsciously. Those who are healthy are the ones who can truly enjoy life to the fullest. While hypertension is commonly associated with parents or the elderly, it can also affect adolescents and adults. This condition has become a significant issue not only in Aceh, Indonesia but globally. Hypertension serves as a risk factor for various other serious illnesses like heart disease, kidney failure, diabetes, and stroke. Engaging in cardiac exercises is highly beneficial for maintaining heart health. In Indonesia, these exercises have gained popularity, with several series designed to cater to individuals of all ages and fitness levels. This Community Service aims to detect and prevent chronic diseases, particularly hypertension, by conducting health assessments and raising awareness about the risks and management of hypertension. Based on the outcomes of Community Service activities in Gampong Bak Buloh, Kuta Baro District, Aceh Besar, it can be inferred that the community has gained awareness regarding the significance of health screenings to identify chronic diseases, particularly hypertension and its complications, thus enhancing the overall health status of the community.

Keywords: Hypertension, Heart Healthy Exercise, Health

INTRODUCTION

Good health is a crucial factor that impacts human life, whether we realize it or not. Those who are healthy are able to fully enjoy their lives. An important indicator of public health is the rate of illnesses and deaths over time. This helps evaluate the effectiveness of health programs and policies implemented by both governmental and non-governmental organizations in the healthcare field (Oktavia et al., 2023).

Currently, hypertension remains a significant global issue. Hypertensive disease, often referred to as the silent killer, is characterized by its lack of obvious symptoms. In adults, hypertension is defined as having a systolic blood pressure of 140 mmHg or higher and/or a diastolic blood pressure of 90 mmHg or higher (Andri et al., 2023). In 2018, approximately one billion individuals worldwide were affected by hypertension, resulting in an estimated 7.5 million deaths, accounting for approximately 23.8% of all total deaths. In the United

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States alone, around 80.9 million people, or 1 in 3 adults, suffer from this condition. Furthermore, it is projected that the number of individuals affected by hypertension will continue to rise by 7.2%, reaching approximately 83.5 million people by 2030 (Ibrahim & Ibrahim, 2023).

The data collected in 2013 revealed that 25.8% of the Indonesian population aged ≥ 18 years had hypertension, with only 9.5% being diagnosed by health workers (Jahirin & Ela, 2018). Fast forward to 2020, the prevalence of hypertension increased to 39.1%, but only 8.6% were diagnosed by health workers (Maywati et al., 2023). These statistics highlight the fact that a significant number of individuals with hypertension are not receiving medical attention from healthcare facilities.

Within 5 years, the prevalence of hypertension has increased, which was obtained through measurements in the population aged ≥ 18 years in 2018 of 34.1% and only 8.6% were diagnosed by health workers. This shows that there are still many people who experience hypertension who do not seek treatment at health care facilities (D. K. Khotimah, 2019)

According to Sawitri & Nadira (2023) efforts made in the management of hypertension in the form of pharmacological efforts (drugs) and non-pharmacological efforts (lifestyle modification). Patients with hypertension who are not compliant with their treatment will result in uncontrolled blood pressure (Wulandari et al., 2023). Uncontrolled and prolonged blood pressure in people with hypertension will cause microvascular complications such as hypertensive retinopathy, nephrosclerosis and macrovascular complications such as peripheral arterial disease, heart and blood vessel disease, stroke (Putri et al., 2023).

Regular monitoring of blood pressure is essential for individuals with hypertension to manage their condition effectively (Ainurrafiq et al., 2019). This activity helps in preventing hospital admissions and complications associated with high blood pressure. According to Suciati & Rustiana (2021) suggest that individuals with hypertension should undergo blood pressure checks every 3 months to healthcare professionals. Proper management of hypertension is crucial in lowering the risk of elevated blood pressure levels.

According to the results of a study conducted by Kapahang et al (2023), there were 38.4% of cases of hypertension not routinely taking treatment to health services and 16.9% of cases showed that patients did not continue taking medication. The reasons for the population not routinely and not taking hypertension medication are patients feel healthy,

choose to take traditional medicine, often forget, cannot afford routine medication, cannot stand the side effects of drugs, and drugs are not available at health care facilities.

Knowledge about blood pressure control plays an important role in the ability to achieve successful blood pressure control in hypertension (Warjiman et al., 2020). Individual knowledge about hypertension helps in controlling blood pressure in people with hypertension because with this knowledge individuals will often visit doctors and adhere to treatment so as to prevent the occurrence of hypertension degrees (Kuna & Mokodompit, 2023).

In addition to conducting routine examinations once every 3 months, non-pharmacological treatment is recommended (Ainurrafiq et al., 2019). Non-pharmacological treatment is carried out by teaching healthy living related to activities such as sports (Hubaybah et al., 2023). Sports are all systematic activities to encourage, foster and develop physical, spiritual and social potential (Fitria et al., 2019).

The type of exercise that is most often and easily done for all ages is gymnastics at 10.6%. Healthy heart gymnastics is an aerobic exercise with moderate intensity (Jahirin & Ela, 2018). Healthy heart gymnastics is a sport that has no major obstacles in its implementation due to the existence of a healthy heart gymnastics trainer's manual (Fitria et al., 2019). Healthy heart exercise consists of 5 series and each series has a different level of training load (Puspitosari & Nurhidayah, 2022). The benefit of doing healthy heart exercises regularly is that it can increase stamina and its activities involve important body functions such as the heart, blood vessels and muscles and respiratory tract (Pujiastuti et al., 2023).

Based on the results of interviews obtained from midwives in Bak Buloh village, there is one case of concern, namely many people who have increased blood pressure and some have even been taken to the local hospital. And based on the results of the interview it was found that 57% of the community had not routinely checked their routine health and had never done healthy heart exercises.

The study aims to detect and prevent chronic diseases, particularly hypertension, by conducting health assessments and raising awareness about the risks and management of hypertension. This includes educational sessions on prevention, diet, and the importance of regular health checks, as well as promoting adherence to both pharmacological and non-pharmacological treatments. Additionally, the study emphasizes the benefits of heart-healthy exercises and encourages their incorporation into daily routines through demonstrations and

community engagement. The ultimate goal is to empower the community with the knowledge and skills to independently maintain their health and well-being.

RESEARCH METHOD

Health assessments were performed on the Bak Buloh community, including blood pressure, weight, height, blood glucose, cholesterol, and uric acid measurements. A lecture and Q&A session focused on hypertension prevention through dietary choices and managing chronic disease complications. Additionally, a demonstration and Q&A session covered safe and effective heart-healthy exercises and their contraindications.

RESULT AND DISCUSSION

Research Result

Activity Implementation Results

This activity was carried out in the form of lectures and programmed questions and answers. Details of the activities can be shown in table 1 below.

Table 1. Details of Socialization Activities in the Community

1st Meeting	Activities
	Early detection of people experiencing chronic diseases (especially hypertension) in Gampong Bak Buloh by conducting health checks..
	Health checks on the community of Gampong Bak Buloh such as measuring blood pressure, height, weight, checking blood glucose levels, cholesterol levels, and uric acid levels.
	Lectures and questions and answers about hypertension, prevention, diet and complications of hypertension.
	Demonstration of how to do healthy heart exercises and questions and answers about healthy heart exercises and their contraindications.

- a. Conducting early detection activities for people in Bak Buloh Village who experience chronic diseases (especially hypertension).
- b. Facilitate health checks in the community of Bak Buloh Village, Kuta Baro District, Aceh Besar. Provide knowledge to the community of Bak Buloh Gampong, Kuta Baro District, Aceh Besar about the importance of health checks to prevent chronic diseases and their complications.
- c. Provide counseling about hypertension and how to prevent it (both dietary changes and theories about hypertension and its complications).

- d. Providing knowledge and understanding to the community of Bak Buloh Village, Kuta Baro District, Aceh Besar about healthy heart exercises and how to do healthy heart exercises independently / in groups in the village environment in improving health status.



Figure 1. Documentation of the Activity

Providing adequate health care facilities for the community of Bak Buloh village, Kuta Baro sub-district, Aceh Besar. An effort to understand the problem of hypertension and its complications and a demonstration of healthy heart exercises in the local community. The village community in this case acted as socialization participants. In this activity, the service team served as presenters and gave demonstrations.

The lecture, question and answer and demonstration activities went smoothly with a conducive atmosphere. The participants seemed to pay close attention to the material presented through leaflets. Some mothers asked several questions related to the material that

had been delivered. In addition, the young women and mothers answered well the questions from the speaker and were accompanied by jokes.

In general, health education related to hypertension and demonstration of healthy heart exercises in preventing hypertension and its complications in chronic diseases during counseling can be understood by the community of Gampong Bak Buloh, Kuta Baro District, Aceh Besar. This can be seen from all participants being able to answer questions asked by the speaker.

Discussion

Hypertension or high blood pressure disease is a disturbance in the walls of blood vessels that experience an increase in blood pressure, resulting in the supply of oxygen and nutrients that cannot reach the tissues that need it (Novitri et al., 2020). This results in the heart having to work harder to meet oxygen demand. If this condition lasts for a long time and persists, it will cause hypertension (Nuraini, 2015).

A person can be said to be hypertensive if the blood pressure exceeds the normal limit of 140 mmHg for systole and 90 mmHg for diastole, which is carried out twice in an interval of 5 minutes, and in a relaxed condition (Siti Suciati & Ernik Rustiana, 2021). Systolic blood pressure is a condition when the heart is contracting / beating to pump blood. while diastole blood pressure is a condition where the heart is relaxing (K. Khotimah, 2023).

Blood pressure can be measured using either a mercury sphygmomanometer or a digital tensimeter. The readings obtained include systolic and diastolic pressure, which help in identifying the presence of hypertension. Various classifications of hypertension are based on these measurements. The World Health Organization (WHO) classifies hypertension as follows:

Table 2. Classification of Hypertension

Category	Systolic Blood Pressure	Diastolic Blood Pressure
Optimal	< 120	< 80
Normal	120-129	80-84
Normal- High	130-139	85-89
1st Degree Hypertension	140-159	90-99
2nd Degree Hypertension	160-179	100-109
3rd Degree Hypertension	≥ 180	≥ 110
Isolated Systolic Hypertension	≥ 140	< 90

Some causes of hypertension, according to Keperawatan (2020), include genetic factors, age, salt intake, excessive fat content in the blood, obesity, stress, smoking, caffeine,

alcohol, and lack of exercise. Individuals with a family history of hypertension, such as having a parent or sibling with the condition, are at a higher risk. Blood pressure tends to increase with age. High salt intake can rapidly raise blood pressure in some individuals, while excessive fat content in the blood can lead to hypertension by causing the blood vessels to narrow. Obesity, defined as being 30% above one's ideal body weight, also elevates the risk of hypertension. Stress can trigger hypertension through increased sympathetic nerve activity, leading to erratic blood pressure spikes. Smoking exacerbates high blood pressure and can lead to heart and blood vessel diseases. Caffeine, found in coffee, tea, and soft drinks, and excessive alcohol consumption can both increase blood pressure. Lastly, a lack of exercise can contribute to hypertension, and those already suffering from hypertension should avoid strenuous physical activity.

Risk Factors for Hypertension

There are controllable and uncontrollable risk factors for hypertension, including (Kartika & Mirsiyanto, 2021) :

1. Controllable Factors

Controllable causes of hypertension are generally related to lifestyle and diet (Tumanduk et al., 2019). These factors include:

a. Overweight (obesity)

The results of the study revealed that overweight people are prone to hypertension. Very obese women at the age of 30 have 7 times the risk of developing hypertension compared to slim women at the same age. Cardiac output and circulating blood volume of obese hypertensive patients. Although the exact relationship between hypertension and obesity is not yet known, it is proven that the heart pumping power and circulating blood volume of obese patients with hypertension are higher than those of normal weight hypertensive patients (Maulidina et al., 2019).

b. Lack of exercise

People who are less active in doing sports generally tend to be overweight and will increase blood pressure. With exercise we can improve the work of the heart. So that blood can be pumped properly throughout the body (Azizah et al., 2023).

c. Excessive salt consumption

Some of our society often links excessive salt consumption with the possibility of developing hypertension. Salt is important in the mechanism of hypertension. The effect of salt intake on hypertension is through an increase in plasma volume or body fluids and blood

pressure. This situation will be followed by an increase in the excretion (excretion) of excess salt so that it returns to the condition of a normal hemodynamic (bleeding) system. In primary (essential) hypertension, this mechanism is disrupted, in addition to the possibility that there are other factors that are influential (Tumanduk et al., 2019). Consuming alcohol can also be harmful to health because it can increase the catecholamine system, the presence of catecholamines triggers blood pressure to rise (Rahmadhani, 2021).

d. Stress

Stress can temporarily increase blood pressure. If we're scared, tense or in trouble, our blood pressure may rise. But in general, once we are relaxed, blood pressure will drop back down. In a state of stress, there is a response of nerve cells that results in abnormalities in the release or transport of sodium. The relationship between stress and hypertension is thought to be through sympathetic nerve activity (nerves that work when exerted) which can increase blood pressure gradually. Prolonged stress can lead to high blood pressure. This has not been proven for sure, but in experimental animals given stress triggers the animals to become hypertensive (Nafi & Putriningtyas, 2023).

2. Uncontrollable factors

a. Heredity (Genetics)

Hereditary factors do have a very large role in the emergence of hypertension. This is evidenced by the discovery that hypertension is more common in monozygotic twins (from one egg) than heterozygous (from different eggs). If a person has a genetic trait of primary (essential) hypertension and does not take care or treatment, there is a possibility that the environment will cause hypertension to develop and in about three decades, signs and symptoms of hypertension with various complications will begin to appear (Maulidina et al., 2019).

b. Gender

In general, men are more affected by hypertension than women. This is because men have many factors that encourage hypertension such as fatigue, feeling uncomfortable, towards work, unemployment and uncontrolled eating. Usually women will experience an increased risk of hypertension after menopause (Maulidah et al., 2022).

c. Age

In general, men are more affected by hypertension than women. This is because men have many factors that encourage hypertension such as fatigue, feeling uncomfortable,

towards work, unemployment and uncontrolled eating. Usually women will experience an increased risk of hypertension after menopause (Saida, 2021).

According to Yusuf and Boy (2023), the signs and symptoms of hypertension include a range of physical manifestations. These symptoms are: headaches and dizziness, often occurring in the morning; tinnitus, characterized by a persistent "ringing" sound in the ears; heart palpitations; general weakness and fatigue; shortness of breath; restlessness; nausea and vomiting; epistaxis (nosebleeds); decreased levels of consciousness; blurred vision; and a lack of variation in blood pressure regardless of positional changes. Recognizing these symptoms is critical for early diagnosis and management of hypertension to prevent severe complications.

According to Wulandari et al (2023), there are 2 treatments for hypertension, namely pharmacology and non-pharmacology. Non-pharmacological therapies include (Sawitri & Nadira, 2023):

a) Diet

Limit or reduce salt consumption. Weight loss can help lower blood pressure along with decreased plasma rennin activity and decreased plasma aldosterone levels.

b) Activity

Participate in any activities that are medically restricted and within your ability, such as walking, jogging, cycling or swimming.

c) Adequate Rest

Adequate rest provides fitness for the body and reduces the body's workload.

d) Reduce stress

Reducing stress can reduce nerve muscle tension, which can reduce the increase in blood pressure.

Prevention of hypertension that can be done according to Maywati et al (2023) are:

- 1) Reduced salt intake (less than 5 grams daily)
- 2) Eat more fruits and vegetables
- 3) Regular physical activity
- 4) Avoiding the use of cigarettes
- 5) Limiting intake of foods high in saturated fat
- 6) Eliminate/reduce trans fats in the diet

CONCLUSION

Based on the outcomes of Community Service activities in Gampong Bak Buloh, Kuta Baro District, Aceh Besar, it can be inferred that the community has gained awareness regarding the significance of health screenings to identify chronic diseases, particularly hypertension and its complications, thus enhancing the overall health status of the community. Additionally, there has been an improvement in the community's knowledge of heart-healthy exercises and their ability to independently engage in such activities. Lastly, educating the community about the importance of regular health check-ups at the nearest healthcare facility has proven to enhance their understanding and awareness.

REFERENCES

- Ainurrafiq, Risnah, & Azhar, M. U. (2019). Terapi Non Farmakologi dalam Pengendalian Tekanan Darah Pada Pasien Hipertensi: Systematic Review. *The Indonesian Journal Of Health Promotion*, 2(3), 192–199.
- Andri, J., Padila, & Sugiharno, R. T. (2023). Pemberian Terapi Rebusan Daun Alpukat Terhadap Penurunan Tekanan Darah Penderita Hipertensi. *Jurnal Keperawatan Silampari*, 6(2), 1430–1437.
- Ayu, D., Sinaga, A. F., & Nabila Syahlan, D. (2022). Faktor - faktor yang menyebabkan hipertensi di kelurahan medan tenggara. *Jurnal Kesehatan Masyarakat*, 10, 136–147. <https://doi.org/10.14710/jkm.v10i2.32252>
- Azizah, M., Dhewi, S., & Anwary, A. Z. (2023). Faktor-Faktor yang Mempengaruhi Kejadian Hipertensi pada Lansia di Wilayah Kerja Puskesmas Kubur Jawa Kabupaten Hulu Sungai Tengah. *The Indonesian Journal Of Health Promotion*, 6(2), 314–320.
- Fitria, N., Lidyana, L., Iskandar, S., Lubis, L., & Purba, A. (2019). Senam Jantung Sehat Seri - I Tiga kali seminggu Meningkatkan Kebugaran Jasmani Lansia. *Jurnal Pendidikan Keperawatan Indonesia*, 1(1), 51–66. <https://doi.org/10.17509/jpki.v5i1.15741>
- Hubaybah, Fitri, A., & Lesmana, O. (2023). Edukasi Dan Pelatihan Senam Anti Hipertensi Pada Lansia Dalam Upaya Pencegahan Penyakit Hipertensi Di Wilayah Kerja Puskesmas Sengeti Kabupaten Muaro Jambi. *Jurnal Salam Sehat Masyarakat*, 4(2), 15–21.
- Ibrahim, F., & Ibrahim, A. A. (2023). Pemantauan Status Gizi Balita Di Desa Saronda Kecamatan Bajo Barat. *Journal Of Community Services*, 5(3).
- Jahirin, & Ela, N. (2018). Pengaruh Senam Jantung Sehat Terhadap Penurunan Tekanan Darah Lansia Yang Menderita Hipertensi Di Panti Sosial. *Healthy Journal | Jurnal Ilmiah Kesehatan Ilmu Keperawatan*, VI(2), 19–28.
- Kapahang, G., Wiyono, W. I., & Mpila, D. A. (2023). Analisis Faktor Risiko Terhadap

- Kejadian Hipertensi Di Puskesmas Ratahan. *Jurnal Kesehatan Tambusai*, 4(2), 637–646.
- Kartika, M., & Mirsiyanto, E. (2021). Faktor-Faktor Risiko Yang Berhubungan Dengan Hipertensi Di Wilayah Kerja Puskesmas Rawang Kota Sungai Penuh Tahun 2020 Berdasarkan Data World Health Puskesmas Rawan. *Jurnal Kesmas Jambi*, 5(1), 1–9.
- Keperawatan, T. F. I. U. M. J. (2020). *Modul Hipertensi*.
- Khotimah, D. K. (2019). *Pengaruh Pemberian Yoga Terhadap Penurunan Intensitas Nyeri Haid (Dismenorea) Pada Remaja Putri Di Mtsn Sidorejo Kab. Madiun*. Stikes Bhakti Husada Mulia Madiun.
- Khotimah, K. (2023). Gambaran Kejadian Hipertensi Pada Lansia Di Desa Adisara Kecamatan Jatilawang Kabupaten Banyumas Tahun 2022. *Jurnal Bina Cipta Husada*, XIX(1), 37–46.
- Kuna, M. R., & Mokodompit, H. K. N. (2023). Pengendalian dan Peningkatan Pengetahuan Masyarakat Tentang Penyakit Hipertensi dan Gastritis. *Jurnal Penabdian Kepada Masyarakat MAPALUS*, 1(2), 64–69.
- Maulidah, K., Neni, N., & Maywati, S. (2022). Hubungan Pengetahuan, Sikap Dan Dukungan Keluarga Dengan Upaya Pengendalian Hipertensi Pada Lansia Di Wilayah Kerja Puskesmas Cikampek Kabupaten Karawang. *Jurnal Kesehatan Komunitas Indonesia*, 18(2), 484–494.
- Maulidina, F., Harmani, N., Suraya, I., Studi, P., Masyarakat, K., Bekasi, P. J., & Gizi, S. (2019). Faktor-Faktor yang Berhubungan dengan Kejadian Hipertensi di Wilayah Kerja Puskesmas Jati Luhur Bekasi Tahun 2018 Factors Associated with Hypertension in The Working Area Health Center of Jati Luhur Bekasi 2018. *ARKESMAS*, 4(July), 149–155.
- Maywati, S., Annashr, N. N., & Laksmi, P. (2023). Pencegahan komplikasi hipertensi melalui edukasi kader posyandu dalam pendampingan pasien hipertensi. *Jurnal Masyarakat Mandiri*, 7(1), 8–12.
- Nafi, S. U., & Putriningtyas, N. D. (2023). Faktor Yang Memengaruhi Kejadian Hipertensi Masyarakat Pesisir (Studi Pada Masyarakat Wilayah Kerja Puskesmas Kedung Ii Jepara). *Journal Of Nutrition College*, 12(11), 53–60.
- Novitri, S. A., Nurmeilis, N. N., & Kamal, D. R. (2020). Efek antihipertensi Ekstrak Etanol Daun Belimbing Wuluh (*Averrhoa blimbing L.*) dengan Metode Non-invasiv. *Pharmaceutical and Biomedical Sciences Journal (PBSJ)*, 2(1), 11–18. <https://doi.org/10.15408/pbsj.v2i1.15235>

- Nuraini, B. (2015). Risk factors of hypertension. *J MAJORITY*, 4(132), 10–19.
- Oktavia, S., M, A. N., & Fernandez, G. (2023). Hubungan Tingkat Pengetahuan Dengan Perilaku Pencegahan Komplikasi Pada Pasien Hipertensi Di Puskesmas Bahu Kota Manado. *Mapalus Nursing Science Journal*, 1(1), 102–107.
- Pujiastuti, M., Hizkia, I., & Munthe, W. (2023). Gambaran Tekanan Darah Pada Masyarakat Yang Mengikuti Senam Jantung Sehat Di Rambung Merah Tahun 2022. *Jurnal Cakrawala Ilmiah*, 2(7), 2905–2912.
- Puspitosari, A., & Nurhidayah, N. (2022). Pengaruh Progressive Muscle Relaxation Terhadap Tingkat Hipertensi Pada Middle Adulthood Di Desa Kemiri Kecamatan Kebakkramat Kabupaten Karanganyar. *Jurnal Ilmu Kedokteran Dan Kesehatan Indonesia*, 2(2), 1–5.
- Putri, A. A., Ludiana, & Ayubbhana, S. (2023). Penerapan Rendam Kaki Air Hangat Terhadap Tekanan Darah Pada Pasien Hipertensi Di Wilayah Kerja Uptd Puskesmas Rawat Inap Banjarsari Kota Metro. *Jurnal Cendikia Muda*, 3(1), 23–31.
- Rahmadhani, M. (2021). Faktor-Faktor Yang Mempengaruhi Terjadinya Hipertensi Pada Masyarakat Di Kampung Bedagai Kota Pinang. *Jurnal Kedokteran STM*, IV(I), 52–62.
- Saida. (2021). Analisis Faktor Risiko Kejadian Hipertensi Di Wilayah Kerja Puskesmas Rarowatu Utara Kab. Bombana Tahun 2021. *Jurnal Keperawatan*, 1(1), 8–18.
- Sawitri, H., & Nadira, C. S. (2023). Tingkat Pengetahuan Penderita Hipertensi Tentang Terapi Non Farmakologi. *Jurnal Ilmiah Kesehatan Diagnosis*, 18, 80–85.
- Suciati, S., & Rustiana, E. (2021). Pemeriksaan Tekanan Darah Dan Konseling Tentang Hipertensi dan Komplikasinya Pada Lansia Di Desa Kromasan Kabupaten Tulungagung. *Janita : Jurnal Pengabdian Kepada Masyarakat*, 1(1), 31–36.
<https://doi.org/10.36563/pengabdian.v1i1.283>
- Tumanduk, W. M., Nelwan, J. E., & Asrifuddin, A. (2019). Faktor-faktor risiko hipertensi yang berperan di Rumah Sakit Robert Wolter Mongisidi. *Jurnal E-Clinic*, 7(2), 119–125.
- Warjiman, Unja, & Er, E. (2020). Skrining dan edukasi penderita hipertensi. *Jurnal Snaka Insan Mengabdi*, 2, 15–26.
- Wulandari, A., Sari, S. A., & Ludiana. (2023). Penerapan Relaksasi Benson Terhadap Tekanan Darah Pada Pasien Hipertensi Di Rsud Jendral Ahmad Yani Kota Metro Tahun 2022. *Jurnal Endekia Muda*, 3(2), 163–171.
- Yusuf, J., & Boy, E. (2023). Manifestasi Klinis pada Pasien Hipertensi Urgensi. *Jurnal Implementasi Husada*, 4(1).