

The Efficacy Of The Murotal Surah Ar Rahman And The Clitoria Ternatea Plant In Reducing Blood Pressure Levels Among The Elderly Population

 Eka Rokhmiati Wahyu Purnamasari^{1*},  Arif Hidayatullah²,  Rosario Stephanie F Ornum³
1,2 Universitas Indonesia Maju,
Indonesia
³Our Lady of Fatima University,
Philippines
 eka.rokhmiati@gmail.com *



Article Information:

Received October 30, 2025

Revised November 22, 2025

Accepted November 25, 2025

Keywords:

Arrahman ; Clitoria; Diastole;
Hypertension ; Systole

Abstract

The prevalence of hypertension is notably elevated in the aging demographic. A proposed method of reducing blood pressure involves the utilization of non-pharmacological treatment regimens comprising Murottal Surah Ar Rahman and Clitoria Ternatea, as observed in RW 10, located in Paledang, Bogor. This study was conducted from January 30, 2025 to February 5, 2025 in RW 10, Paledang, Bogor. The study's participants included 36 elderly individuals who were prescribed antihypertensive medication. The participants were administered Clitoria Ternatea Linn flower tea and were exposed to Surah Ar-Rahman from the Qur'an (Muslim elderly) as an intervention. The data collection methods employed in this study encompassed the measurement of systolic and diastolic blood pressure prior to and following the intervention. The present study employed a quasi-experimental method, lacking a group control, and utilized a pre- and post-test approach. The findings indicated a substantial variation in systolic blood pressure levels, Surah Ar-Rahman. A decline in systolic pressure from 144 mmHg to 134 mmHg was documented, exhibiting a Z score of -3.726 and a P value less than 0.01, thereby indicating a statistically significant outcome. A decrease in diastolic pressure was also observed, from 91 mmHg to 86 mmHg after the intervention, with a Z score of -2.779 and a P value of 0.005. The administration of Clitoria Ternatea resulted in a decrease in systolic pressure from 141 mmHg to 134 mmHg, while diastolic pressure decreased from 88 mmHg to 87 mmHg. A substantial alteration in systolic pressure was ascertained, with a p-value of less than 0.001. A P-value of 0.310 revealed an absence of correlation between diastolic blood pressure before and after the intervention. The complementary therapy demonstrated efficacy in reducing systolic and diastolic blood pressure. It is imperative to underscore the role of this therapeutic modality as a complementary intervention, not as a primary treatment modality. Hypertension patients are required to take antihypertensive medications and undergo regular checkups as the primary treatment.

A. Introduction

Hypertension is a chronic condition that necessitates a disciplined and regular healthy lifestyle. A lifestyle that includes a high-salt diet, smoking, and alcohol consumption can trigger hypertension (Nagao et al., 2021). In the absence of self-regulation of lifestyle and habits, an elevation in blood

pressure is to be expected, which can lead to further complications (Adam, 2019). Hypertension has been identified as the foremost non-communicable disease in the West Java region (Kemenkes RI, 2018). About the middle age 40-54, elderly age 55-65, young old age 66-74, old age 75-90 and very old age more 90 Late Old Age (Setyo & , Winarsih, 2013). The term "old age" is generally accepted to denote a state in which an individual has reached a minimum age of 60 years. It is imperative to recognize the necessity of enhanced access to healthcare services, social support networks, familial assistance, and financial autonomy for individuals in this demographic, as these elements contribute to their holistic well-being and potential contribution to society (Singh, 2025). Hypertension in older adults has been associated with an elevated risk of adverse health outcomes, including but not limited to arterial stiffness, stroke, heart disease complications, and cognitive impairment. The implementation of non-pharmacological treatment for hypertension is more feasible in younger individuals, particularly with regard to lifestyle modifications and the adoption of a low-sodium diet (Benetos et al., 2019). In the context of hypertension, older adults exhibit a heightened association between age, comorbidities, and depression with limitations in daily activities (Caskie et al., 2010).

Kampung Paledang RW 10, Bogor, West Java, is distinguished by its considerable population. The region is distinguished by a high population density, with a notable segment of the population consisting of large families. The consumption of salted fish and other high-sodium foods constitutes a long-standing tradition in this region. This dietary practice constitutes an integral component of their daily routine. . Elevated blood pressure, affects nearly 80% of the elderly population, particularly those over the age of 30 (Xu et al., 2016) This phenomenon is frequently ascribed to detrimental lifestyle decisions. According to the Central Statistics Agency (BPS), the life expectancy (LE) in Indonesia in 2024 is projected to increase to 72.06 years for men and 76.56 years for women. In 2023, the respective ages will be 72.01 years and 76.19 years for men and women, respectively. Consequently, it is imperative to manage hypertension in the elderly. The highest number of hypertension cases in this region were found in elderly women (29 cases) and elderly men (8 cases). As demonstrated in the research by (Nagao et al., 2021). Elderly women exhibit a higher propensity for developing hypertension in comparison to elderly men with a documented history of smoking As indicated (Wang et al., 2023). the preponderance of hypertension diagnoses among elderly women is characterized by a significant proportion of widows. Given the demographic shift towards an aging population, there is a growing need to develop effective strategies that promote lifestyle modifications to manage hypertension (Shin & Kim, 2022). Blood pressure is classified into two categories: systolic and diastolic the standard systolic pressure is less than 120 mmHg, while the standard diastolic pressure is 80 mmHg. (Kementerian Kesehatan RI, 2021) the standard systolic pressure is less than 120 mmHg, while the standard diastolic pressure is 80 mmHg. Hypertension is defined as a persistent increase in systolic and diastolic blood pressure in the arteries. Hypertension is classified as high normal/prehypertension if the systolic pressure ranges from 130-139 mmHg and the diastolic pressure ranges from 85-89 mmHg. Stage 1 hypertension is characterized by systolic blood pressure levels ranging from 140 to 159 mmHg and diastolic blood pressure levels between 90 and 99 mmHg. Stage 2 hypertension is characterized by systolic pressure ranging from 160 to 179 mmHg and diastolic pressure ranging from 100 to 109 mmHg. Stage 3 hypertension is characterized by systolic blood pressure levels greater than 180 mmHg and diastolic blood pressure levels greater than 110 mmHg (Williams et al., 2018). Hypertension in the elderly is associated with a multitude of complications, including stroke and heart disease, which impose a significant burden on families and adversely impact quality of life, manifesting in sleep disturbances (Saha et al., 2024). Elderly individuals who are cognizant of their hypertension demonstrate a higher propensity to adhere to a consistent medication regimen and cultivate a healthy lifestyle. Subjects indicated a preference for herbal beverages and therapeutic interventions that align with their belief systems. There remains a degree of reluctance to utilize acupuncture or other device-based therapeutic modalities. Acupuncture is an alternative solution to lower hypertension along with antihypertensive drugs (Huang et al., 2022).

As they age, older adults express a preference for herbal therapies and auditory stimuli as non-pharmacological alternatives for hypertension. The aforementioned therapies have been demonstrated to be more natural, calming, and can provide comfort without the risk of adverse effects. *Clitoria ternatea* (CT) or *Clitorian Ternatea* Linn (CTL). is frequently encountered in Southeast Asia, particularly in Indonesia. The plant is a vine that produces striking blue flowers, although white

varieties are also present. In certain instances, the petals exhibit a gradation of color, ranging from purple to light blue at the tips. In addition to its ornamental value, CTL has been shown to possess various benefits, including its use as a natural coloring agent in food and beverages, as well as in herbal and alternative medicine (Handito et al., 2022) (Abance et al., 2021). The potential benefits of this supplement include the ability to alleviate disorders, regulate high blood pressure, and enhance memory. The mineral content of CTL, namely calcium, magnesium, and potassium, has been demonstrated to contribute to the maintenance of healthy blood pressure (Muhammad Ezzudin & Rabeta, 2018). In Indonesia, CTL was promoted as a healthy antihypertensive beverage (Wicita et al., 2023). The high antioxidant content, which is comprised of saponins and flavonoids, has been demonstrated to play a role in the treatment of hypertension (Hariadi et al., 2022). A thorough examination of the extant literature from 2012 to 2022 discloses a positive correlation between CT and blood pressure levels (Rizkawati et al., 2023). demonstrated that the consumption of telang soaked in 200 milliliters of water over a period of seven days results in a significant reduction in blood pressure (Unja et al., 2024).

Muslims subscribe to the belief that the Qur'an possesses the ability to cure all diseases. Healing encompasses both physical and mental health domains (Hapsari et al., 2024). Murottal Al- Quran is defined as a recording of the Qur'an that is recited by a qari'. Audio therapy, defined as the practice of listening to a recording of verses from the Qur'an recited by a qari, constitutes an integral component of Islamic spiritual practice. The recitation of the Qur'an must be done in accordance with good and correct tajwid. Consequently, the reader must demonstrate a high level of concentration (Ridwan et al., 2022). The act of engaging with the recitation of the Qur'an, whether through reading or listening, has been demonstrated to induce alpha waves, which have been associated with increased relaxation and reduced stress levels (Putri et al., 2021). Severity of this condition is determined through the administration of an electroencephalogram (EEG). As indicated, the act of listening to murottal has been demonstrated to elicit a more calming effect in comparison to other forms of music, including soft music or rock music (Aprilini et al., 2019). In addition to reducing the level of pain from diabetes mellitus wounds (Hidayati & Restuning Prihati, 2023), murottal therapy of Murottal Surah Ar Rahman (MSA) for three consecutive days can also lower blood pressure in hypertension (Setiawan et al., 2022; Wahyuni et al., 2021) and uncontrolled hypertension, with average changes in systolic and diastolic blood pressure of -5.9 and -3.8 mmHg, respectively (Norwati et al., 2023). The practice of listening to Quranic recitations, or murottal, has been demonstrated to have a positive impact on psychological and mental health, including the alleviation of symptoms associated with anxiety and depression (Moulaei et al., 2023).

The results of a survey on the use of complementary therapies among elderly people with hypertension in the Paledang region show that the community prefers MSA and herbal/CTL therapies. These therapies are rarely used and are new among them. Although they have a historical role as conventional treatments, these two complementary therapies have been proven effective in the natural or holistic management of hypertension in the community. CTL therapy, which has a documented history of its benefits for human health, has been the subject of scientific research that has confirmed its effectiveness. In a similar context, murottal therapy using MSA techniques has been proven to increase relaxation and calmness. This, in turn, has been proven to reduce stress and anxiety levels through scientific methods. The phenomena mentioned above have been proven to have beneficial effects on blood pressure. Given the above findings, researchers sought to determine the effectiveness of these two therapeutic interventions in managing hypertension among the elderly population in RW 10, Paledang Village, Bogor, West Java.

B. Methods

The community service project under consideration used a quantitative design, incorporating quasi-experimental methods. This project involved administering pre- and post-design, for two groups. The statistical test used was the Wilcoxon test. The sampling method used was purposive sampling, with 36 elderly respondents with hypertension and actively taking antihypertensive medication. 18 Respondents special hearing activity was conducted for Muslim elderly. 18 Respondents participated in drinking telang tea. The hypertensive respondents did not show any complications, including stroke, hearing loss, or physical immobility.

The study was conducted from January 30, 2025, to February 5, 2025, in RW 10, Paledang, Bogor. Prior to the commencement of the study, the researchers obtained written consent from the subjects for the experimental intervention, which included the administration of Clitorian Ternatea Linn flower tea or murottal. We used an ethical clearance letter with the number 3993/Sket/Ka-Dept/RE/UIMA/I/2025. The intervention was administered once a day, before and after blood pressure measurements. Blood pressure measurements were taken using a calibrated digital sphygmomanometer.

Next, blood pressure measurements were taken for each MSA and CTL group. Comprehensive data was collected, including systolic and diastolic blood pressure measurements. Measurements were taken before and after the intervention. The researchers used observation sheets and carefully recorded the systolic and diastolic results.

The MSA intervention lasted 15 minutes for 7 days (Anisa Melia Yahya & Anjar Nurrohmah, 2023). Researchers prepared a location free from disturbances, such as light, sound, and a sitting position with a straight but relaxed back. The latter aspect is important for maintaining physical comfort. The audio recording contained an auditory description of MSA, which was played for fifteen minutes. Respondents used headphones with adjusted volume settings. Three to five dried CT flowers were added to 200 cc of hot water, and the mixture was left to steep until the water turned blue or purple. Consumption of the CT flower infusion for 7 days was recommended to be drunk after it had cooled (Unja et al., 2024).

Figures And Tables

Table 1. Characteristic subject

No	Characteristic	Frequency	%
1	Gender		
	Man	8	14,5
	Women	28	50,9
	Total	36	100%
2	Age		
	Middle age	6	10,9
	Elderly	20	36,4
	Young old	9	16,4
	Old	1	1,8
	Total	36	100%



Table 2. Distribution blood pressure participation Murottal surah Ar Rahman

No	Category	Freq Systole		%		Freq Diastole		%	
		Before	After	Before	After	Before	After	Before	After
1	Pre hypertension	4	12	22%	67%	8	5	44%	28%
2	Hypertension Stage 1	13	6	72%	33%	5	0	28%	0
3	Hypertension Stage 2	1	0	6%	0	5	0	28%	0
Total		18	18	100%	100%	18	18	100%	100%



Table 3. Distribution blood pressure participation *Clitoria Ternatea* Linn

No	Category	Freq Systole		%		Freq Diastole		%	
		Before	After	Before	After	Before	After	Before	After
1	Pre hypertension	9	15	50%	83%	12	11	67%	61%
2	Hypertension Stage 1	8	3	44%	17%	6	7	33%	39%
3	Hypertension Stage 2	1	0	6%	0	0	0	0%	0
Total		18	18	100%	100%	18	18	100%	100%



Table 4. Bivariate blood pressure Murottal Surah Ar Rahman and Clitoria Ternatea Linn

Group	Blood Pressure	Media Min	Max	Mean	SD	Neg Rank	Pos Rank	Ties	Z	P value
MSA	Systole Before	131	162	144	7.948	18	0	0	-3.726	< 0.01
	Systole After	123	156	134	9.042					
	Diastole Before	80	104	91	7.627	15	1	2	-2.779	0.005
	Diastole After	80	104	86	5.833					
Clitoria Ternatea	Systole Before	127	162	141	9.707	15	1	2	-3.288	0.001
	Systole After	122	154	134	7.404					
	Diastole Before	81	99	88	4.997	8	5	5	-1.016	0.310
	Diastole After	80	96	87	4.694					

C. Results and Discussion

Aging has been shown to cause a physiological decrease in the hormone aldosterone, which is responsible for maintaining salt and potassium balance. This decrease can lead to narrowing of the arteries leading to the heart. The likelihood of developing hypertension is 1.59 times higher for menopausal women. It is imperative to closely monitor salt intake after the age of 50 (Kartika et al., 2019). Prolonged exposure to stress has been demonstrated to induce an increase in blood pressure (Kafi & Dyah, 2022). Cortisol levels have been observed to increase in response to noise exposure; however, these levels can be reduced through the recitation of MSA (Putri et al., 2021). The majority of women with hypertension (28, or 50.9%) had the opportunity to engage in this activity. Concurrently, the characteristics of middle-aged women in the early stages of menopause constituted 20 cases (36.4%).

The auditory stimulation through the recitation of MSA induced a reduction in systolic and diastolic blood pressure, thereby shifting the hypertension stage from a higher to a lower category. This finding aligns with the results of a study conducted on patients suffering from uncontrolled hypertension, in which the recitation of verses from the Quran led to a reduction in both systolic and diastolic blood pressure (Norwati et al., 2023). The recitation of MSA has been demonstrated to reduce systolic blood pressure by approximately 5 mmHg and diastolic blood pressure by approximately 3 mmHg (Setiawan et al., 2022).

The following experiment will test the hypothesis that listening to sequential MSA readings will produce certain results. Previously, pre-hypertension was identified in 22% (4 respondents) of systolic blood pressure and 44% (8 respondents) of diastolic blood pressure. After the intervention, systolic blood pressure increased to 67% (12 respondents) and diastolic blood pressure increased to 67% (12 respondents). The number of respondents with stage 1 hypertension decreased from 72% (13 respondents) before systolic blood pressure to 33% (6 respondents) after, while the number of respondents with stage 2 hypertension increased from 28% (5 respondents) before systolic blood pressure to 33% (6 respondents) after. The prevalence of stage 2 hypertension among respondents before the intervention was 6% (1 respondent), with 28% (5 respondents) showing diastolic blood pressure. After this, no subjects remained at this stage; 0 (0%) diastolic blood pressure became 0 (0%) or after the final measurement was taken. The study showed that the recitation of MSA exerted a significant influence on both systolic and diastolic blood pressure. The participants were instructed to recite seventy-eight verses of MSA for a period of fifteen minutes on each of the seven days of the experiment. This surah expounds on the blessings bestowed upon humanity by Allah SWT. The recitation of MSA, characterized by a soft intonation, a tranquil rhythm, and a sense of joy, has been shown to elicit a psychological response characterized by a state of calmness. During periods of calm, the parasympathetic nervous system (PNS) initiates a decrease in heart rate and an increase in blood flow. This increased blood flow is expected to lead to a balanced

blood pressure in hypertensive patients. The respondents exhibited blood pressure levels classified as stage 2 hypertension, defined by systolic blood pressure values exceeding 140 mmHg and diastolic blood pressure values surpassing 90 mmHg. The analysis revealed that respondents who utilized murottal demonstrated a decline in systolic blood pressure of 10 mmHg and a decrease in diastolic blood pressure of 5 mmHg. This phenomenon is further substantiated by the observed average changes in systolic and diastolic blood pressure before and after the recitation of MSA. Systolic blood pressure exhibited a decrease from 144 mmHg to 134 mmHg following the intervention, yielding a Z value of -3.726 and a P value less than 0.01. This finding indicates a substantial discrepancy between systolic blood pressure levels before and after the initiation of murottal therapy. Concurrently, diastolic blood pressure exhibited a decline from 91 mmHg to 86 mmHg following the intervention, as indicated by a Z value of -2.779 and a P value of 0.005. Consequently, this therapeutic modality exerts a substantial influence on reducing diastolic blood pressure. The impact of Murottal therapy on MSA has been demonstrated to result in a reduction of systolic and diastolic blood pressure.

The administration of CTL to hypertensive patients with systolic blood pressure resulted in a significant reduction in blood pressure (Devita et al., 2025). The study involved the administration of CTL nanoparticle syrup at a dose of 0.9 g and an anthocyanin content of 0.115 mg per day, which effectively lowered blood pressure (Maneesai et al., 2021). The administration of CTL extract has been shown to have a beneficial effect on hypertension and cardiovascular changes, with a concomitant reduction in stress levels (Nursakinah & Handayani, 2021). Body mass index (BMI) has been shown to have a significant impact on blood pressure, particularly diastolic blood pressure. Furthermore, factors such as body position, including supine and seated positions, have been demonstrated to influence blood pressure (Dumalang et al., 2022). body mass index (BMI) has been shown to have a significant impact on blood pressure, particularly diastolic blood pressure. Furthermore, factors such as body position, including supine and seated positions, have been demonstrated to influence blood pressure. The following study will describe the average systolic and diastolic blood pressure before and after administration of Clitoria Ternatea. A decrease in systolic blood pressure was observed, from 141 mmHg to 134 mmHg, while diastolic blood pressure decreased from 88 mmHg to 87 mmHg. A significant change in systolic blood pressure was observed, with a p-value of less than 0.001. However, no correlation was found between diastolic blood pressure measurements before and after the intervention, as indicated by a p-value of 0.310. Fifteen respondents showed a decrease in systolic blood pressure both before and after the intervention, while one respondent showed an increase in systolic blood pressure both before and after the measurement. Diastolic blood pressure levels showed a decrease in eight respondents, an increase in five respondents, and no change in five respondents.

One limitation of this community-based study was that a significant number of respondents did not complete the 7-day intervention, which was an essential component of the study. This was due to family commitments, which made the intervention impossible and led to its discontinuation.

D. Conclusion

As we age, the prevalence of cardiovascular disease increases, which can lead to hypertension, defined as “high blood pressure.” Hypertension has been shown to cause dangerous complications, including stroke, myocardial infarction, and kidney dysfunction. The effectiveness of several alternative therapeutic interventions in lowering systolic blood pressure has been proven. These include complementary therapy, MSA, and CTL, each of which has been shown to lower systolic blood pressure by 10 mmHg and 5 mmHg, respectively. Specifically, diastolic blood pressure showed a decrease of 5 mmHg and 1 mmHg, respectively. Extensive research has proven the effectiveness of this therapy in lowering systolic and diastolic blood pressure. It is important to emphasize that this therapeutic modality serves as a complementary intervention, not as the primary treatment modality. Hypertensive patients are required to take antihypertensive drugs and undergo regular checkups as their primary treatment. Hypertension, characterized by persistently high blood pressure, is a chronic condition that requires ongoing medical management. The complementary therapy to be introduced is cupping therapy, in accordance with the teachings of Sunnahtullah, as the majority of the population identifies as Muslim.

E. Acknowledgment

RW Paledang, Bogor & Bachelor of Nursing Study Program, Faculty of Health Sciences/FIKES, Universitas Indonesia Maju (UIMA), Thank you for your support during the community service activities.

REFERENCES

- Abance, A. C., Anglaser, S. D., Soriano, F. J. A., Umadhay, A. G. C., Malaco, A. C., & Besa, A. S. (2021). Respondents' Level of Education, Knowledge, Awareness, and Acceptability of Blue Ternate (*Clitoria ternatea*) as Alternative Medicine. *Indonesian Journal of Multidisciplinary Research*, 1(2), 337–340. <https://doi.org/10.17509/ijomr.v1i2.37818>
- Adam, L. (2019). Determinan hipertensi pada lanjut usia. *Jambura Health and Sport Journal*, 1(2), 82–89. <https://doi.org/10.37311/jhsj.v1i2.2558>
- Anisa Melia Yahya, & Anjar Nurrohmah. (2023). Penerapan Terapi Murottal Al-Qur'an Surah Ar-Rahman terhadap Kualitas Tidur Lansia di Dusun Ngendak. *Jurnal Ilmu Kesehatan dan Gizi*, 1(4), 166–181. <https://doi.org/10.55606/jikg.v1i4.1790>
- Aprilini, M., Mansyur, A. Y., & Ridfah, A. (2019). Efektivitas Mendengarkan Murottal Al-Quran Dalam Menurunkan Tingkat Insomnia Pada Mahasiswa. *Psikis : Jurnal Psikologi Islami*, 5(2), 146–154. <https://doi.org/10.19109/psikis.v5i2.2103>
- Benetos, A., Petrovic, M., & Strandberg, T. (2019). Hypertension Management in Older and Frail Older Patients. *Circulation Research*, 124(7), 1045–1060. <https://doi.org/10.1161/CIRCRESAHA.118.313236>
- Caskie, G. I. L., Sutton, M. C., & Margrett, J. A. (2010). The relation of hypertension to changes in ADL/IADL limitations of mexican american older adults. *Journals of Gerontology - Series B Psychological Sciences and Social Sciences*, 65 B(3), 296–305. <https://doi.org/10.1093/geronb/gbq001>
- Devita, D., Mardiyono, M., & Sudirman, S. (2025). Effectiveness Butterfly Pea Flower (*Clitoria Ternatea*) Nanoparticles Syrup on Blood Pressure Grade I in Hypertension Patients. *Media Penelitian dan Pengembangan Kesehatan*, 35(3), 905–912. <https://doi.org/10.34011/jmp2k.v35i3.2988>
- Dumalang, E. R., Lintong, F., & Danes, V. R. (2022). Analisa Perbandingan Pengukuran Tekanan Darah antara Posisi Tidur dan Posisi Duduk pada Lansia. *Jurnal Biomedik: JBM*, 14(1), 96–101. <https://doi.org/https://doi.org/10.35790/jbm.v14i1.37592>
- Handito, D., Basuki, E., Saloko, S., Dwikasari, L. G., & Triani, E. (2022). Analisis Komposisi Bunga Telang (*Clitoria ternatea*) Sebagai Antioksidan Alami Pada Produk Pangan. *Prosiding SAINTEK*, 4(November 2021), 64–70. <https://jurnal.lppm.unram.ac.id/index.php/prosidingsaintek/article/view/481>
- Hapsari, P., Darodjat, & Kusumawinakhyyu, T. (2024). The Power of Qur'an to Heal Physical and Mental Illness. *Psikis : Jurnal Psikologi Islami*, 10(1), 1–11. <https://doi.org/10.19109/psikis.v10i1.19203>
- Hariadi, H., Rahmawati, L., Sagita, D., Ulfah, T., Widiawati, W., & Intani, T. W. (2022). Pengaruh penambahan ekstrak bunga telang (*Clitoria Ternatea* L) pada sari buah belimbing wuluh (*Averrhoa Bilimbi*) sebagai minuman fungsional antihipertensi. *Composite: Jurnal Ilmu Pertanian*, 4(1), 1–6. <https://doi.org/10.37577/composite.v4i1.391>
- Hidayati, A., & Restuning Prihati, D. (2023). Application Of Surah Ar-Rahman Murottal Therapy For Reducing Pain Levels In Diabetic Ulcer Patients. *Jurnal Ilmu dan Teknologi Kesehatan STIKES Widya Husada*, 14(2), 64–68. <https://doi.org/10.33666>
- Huang, K. Y., Chang, C. H., Yu, K. C., & Hsu, C. H. (2022). Assessment of quality of life and activities of daily living among elderly patients with hypertension and impaired physical mobility in home health care by antihypertensive drugs plus acupuncture A CONSORT-compliant, randomized controlled trial. *Medicine (United States)*, 101(11). <https://doi.org/10.1097/MD.00000000000029077>
- Kafi, D. S., & Dyah, E. (2022). a Description of the Relationship Between Occupational Stress and Blood

- Pressure Changes in Workshop Mechanics. *Indonesian Journal of Public Health*, 17(2), 297–304. <https://doi.org/10.20473/ijph.v17i2.2022.297-304>
- Kartika, I. I., . C., & PriAndini, S. (2019). Association between the Onset of Menopause and Hypertension among Elderly in Kamurang and Rawakuda Villages, Kedung Waringin Sub-District in 2019 Iin Ira Kartika, Cusmarih, Sisca PriAndini. *KnE Life Sciences*, 2019, 413–421. <https://doi.org/10.18502/cls.v4i13.5273>
- Kemendes RI. (2018). Hasil Utama Riset Kesehatan Dasar Tahun 2018. *Kementrian Kesehatan Republik Indonesia*, 1–100. <https://doi.org/10.1002/hsr2.1751> Desember 2013
- Kementerian Kesehatan RI. (2021). Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01.07 Tahun 2021 Tentang Pedoman Nasional Pelayanan Kedokteran Tata Laksana Hipertensi Dewasa. *Kementerian Kesehatan Republik Indonesia*, 1–85.
- Maneesai, P., Iampanichakul, M., Chaihongsa, N., Poasakate, A., Potue, P., Rattanakanokchai, S., Bunbupha, S., Chiangsaen, P., & Pakdeechote, P. (2021). Butterfly pea flower (*Clitoria ternatea* linn.) extract ameliorates cardiovascular dysfunction and oxidative stress in nitric oxide-deficient hypertensive rats. *Antioxidants*, 10(4). <https://doi.org/10.3390/antiox10040523>
- Moulaei, K., Haghdoost, A. A., Bahaadinbeigy, K., & Dinari, F. (2023). The effect of the holy Quran recitation and listening on anxiety, stress, and depression: A scoping review on outcomes. *Health Science Reports*, 6(12). <https://doi.org/10.1002/hsr2.1751>
- Muhammad Ezzudin, R., & Rabeta, M. S. (2018). A potential of telang tree (*Clitoria ternatea*) in human health. *Food Research*, 2(5), 415–420. [https://doi.org/10.26656/fr.2017.2\(5\).073](https://doi.org/10.26656/fr.2017.2(5).073)
- Nagao, T., Nogawa, K., Sakata, K., Morimoto, H., Morita, K., Watanabe, Y., & Suwazono, Y. (2021). Effects of alcohol consumption and smoking on the onset of hypertension in a long-term longitudinal study in a male workers' cohort. *International Journal of Environmental Research and Public Health*, 18(22). <https://doi.org/10.3390/ijerph182211781>
- Norwati, D., Ahmad, K., Bakar, M., & Dramand, N. (2023). The Effect of Listening to Al-Quran Recitation among Uncontrolled Hypertensive Muslim Patients Attending Primary Care Clinic in Kelantan, Malaysia: A Randomised Control Trial. *IIUM Medical Journal Malaysia*, 22(1), 42–48. <https://doi.org/10.31436/imjm.v22i1.1806>
- Nursakinah, Y., & Handayani, A. (2021). Faktor-Faktor Risiko Hipertensi Diastolik Pada Usia Dewasa Muda. *Jurnal Pandu Husada*, 2(1), 21. <https://doi.org/10.30596/jph.v2i1.5426>
- Putri, N. A., Harsono, L. M., Putri, N. C., Wibowo, A. P., Mustafidah, H., Yuwono, E. A., Nahla, S., & Qudsyi, H. (2021). Pengaruh Murottal Al- Qur ' an terhadap Tingkat Stres pada Mahasiswa Universitas Islam Indonesia The Effect of Murottal Qur ' an on Stress Level in Indonesian Islamic University Students Pendahuluan Universitas Negeri Provinsi Riau berada pada kategori st. *Jurnal Psikologi Islam*, 8(2), 47–54. <https://doi.org/10.47399/jpi.v8i2.125>
- Ridwan, R. R., Rachman, M. E., Muchsin, A. H., Arifuddin, A. T. S., & Gayatri, S. W. (2022). Pengaruh Mendengarkan Murottal Al-Qur'an Terhadap Peningkatan Kemampuan Konsentrasi pada Santriwati Madrasah Aliyah (MA) Pondok Pesantren Darud Da'wah Wal Irsyad (DDI) Mangkoso. *Fakumi Medical Journal: Jurnal Mahasiswa Kedokteran*, 2(11), 811–818. <https://doi.org/10.33096/fmj.v2i11.142>
- Rizkawati, M., Fairuz, R. A., & Absari, N. W. (2023). Potensi Tanaman Herbal Bunga Telang (*Clitoria Ternatea*) Sebagai Alternatif Antihipertensi. *Healthy Tadulako Journal (Jurnal Kesehatan Tadulako)*, 9(1), 43–50. <https://doi.org/10.22487/htj.v9i1.637>
- Saha, A., Muhammad, T., Mandal, B., Govil, D., & Ali, W. (2024). Moderating role of functional/mobility limitations in the association between sleep problems and hypertension among middle-aged and older adults in India. *Preventive Medicine Reports*, 38(December 2023), 102589. <https://doi.org/10.1016/j.pmedr.2024.102589>
- Setiawan, Apriani, Afriyani, R., & Firmansyah, M. R. (2022). Murottal Surah Ar-Rahman Terhadap Penurunan Tekanan Darah Pasien Hipertensi Di Puskesmas Merdeka. *Kesehatan dan Pembangunan*, 12(23), 84–91. <https://doi.org/10.52047/jkp.v15i1>
- Setyo, R. W., & , Winarsih, W. & I. (2013). Peningkatan Derajat Kesehatan Lansia Melalui Penyuluhan

- dan Pemeriksaan Kesehatan Lansia di Dusun Mrisi Yogyakarta. *Pengabdian Masyarakat Cendekia (PMC)*, 2(2), 58–61. <https://doi.org/10.55426/pmc.v1i2.185>
- Shin, J., & Kim, K. il. (2022). A clinical algorithm to determine target blood pressure in the elderly: evidence and limitations from a clinical perspective. *Clinical Hypertension*, 28(1), 1–9. <https://doi.org/10.1186/s40885-022-00202-9>
- Singh, A. (2025). Health and Well-Being Among Elderly. *International Journal of Scientific Research*, 11(2), 650–658. <https://doi.org/10.32628/IJSRST24112113%0AHealth>
- Unja, E. E., Fitrianiingsih, R. N., Oktovin, O., Rachman, A., Warjiman, W., & Lanawati, L. (2024). Pengaruh Pemberian Teh Bunga Telang Terhadap Perubahan Tekanan Darah pada Penderita Hipertensi. *Indonesian Journal of Innovation Multidisipliner Research*, 2(3), 393–401. <https://doi.org/10.69693/ijim.v2i3.196>
- Wahyuni, W., Silvitasari, I., & Indarwati, I. (2021). Menurunkan Tekanan Darah Dengan Terapi Murotal Al-Quran Pada Pasien Hipertensi Dewasa Di Wilayah Kerja Puskesmas Bendosari. *Profesi (Profesional Islam) : Media Publikasi Penelitian*, 18(2), 124–131. <https://doi.org/10.26576/profesi.v18i2.78>
- Wang, X., Yuan, X., Xia, B., He, Q., Jie, W., & Dai, M. (2023). Living Alone Increases the Risk of Hypertension in Older Chinese Adults: A Population-Based Longitudinal Study. *Innovation in Aging*, 7(6), 1–8. <https://doi.org/10.1093/geroni/igad071>
- Wicita, P. S., Imran, A. K., & Yunus, F. A. M. (2023). Utilization Of Butterfly Pea Instant Powder as an Antihypertension Health Drink in Dungaliyo Village, Gorontalo District. *ABDIMAS: Jurnal Pengabdian Masyarakat*, 6(3), 4071–4078. <https://doi.org/10.35568/abdimas.v6i3.3464>
- Williams, B., Mancia, G., Spiering, W., Rosei, E. A., Azizi, M., Burnier, M., Clement, D. L., Coca, A., De Simone, G., Dominiczak, A., Kahan, T., Mahfoud, F., Redon, J., Ruilope, L., Zanchetti, A., Kerins, M., Kjeldsen, S. E., Kreutz, R., Laurent, S., ... Zamorano, J. L. (2018). 2018 ESC/ESH Guidelines for themanagement of arterial hypertension. *European Heart Journal*, 39(33), 3021–3104. <https://doi.org/10.1093/eurheartj/ehy339>
- Xu, X., Rao, Y., Shi, Z., Liu, L., Chen, C., & Zhao, Y. (2016). Hypertension Impact on Health-Related Quality of Life: A Cross-Sectional Survey among Middle-Aged Adults in Chongqing, China. *International Journal of Hypertension*, 2016. <https://doi.org/10.1155/2016/7404957>