

COMBINED MURROTAL THERAPY AND SLOW STROKE BACK MASSAGE (TIMUN MAS) LOWERED BLOOD PRESSURE IN THE ELDERLY: A CASE STUDY

Millenia Artis Shintia¹, Lita Heni Kusumawardani^{2,3} ✉ *, Endang Triyanto²

¹ Professional Nurse Program, Faculty of Health Sciences, Universitas Jenderal Soedirman

² Department of Nursing, Faculty of Health Sciences, Universitas Jenderal Soedirman

³ PUI Centre of Applied Science for Pharmaceutical and Health, Universitas Jenderal Soedirman Purwokerto

*Correspondence Author: litahenikusumawardani@unsoed.ac.id

Background. Elderly is a population group aged 60 years and over where at that age will experience a decline in health functions including decreased heart function, one of which is hypertension. Therefore, proper treatment is needed to reduce blood pressure, one of which is murottal therapy and slow stroke back massage. This case study aimed to determine the effect of a combination of murottal therapy and slow stroke back massage (TiMun Mas) to reduce blood pressure in the elderly. **Methods.** This research was conducted with case studies on three elderly with hypertension in Kemutug Kidul Village, Baturraden. The intervention provided was a combination of murottal therapy and slow stroke back massage which was carried out within 3 days for 15 minutes. Blood pressure measurements were performed before and after therapy. Univariate data analysis is presented in the frequency distribution while bivariate analysis uses the Wilcoxon test. **Results.** The client's blood pressure description has decreased with an average systolic blood pressure from 187 mmHg to 141 mmHg and diastolic from 102 mmHg to 81 mmHg. Wilcoxon test results obtained sig. (2-tailed) has a systolic value of 0.008 and a diastolic value of 0.012 where both values are <0.05. **Conclusion.** The results of the case study showed that there is was significant effect of giving a combination of murottal therapy and slow stroke back massage (TiMun Mas) on reducing blood pressure in the elderly.

KEYWORDS

Elderly, hypertension, murottal, slow stroke back massage

INTRODUCTION

Elderly or elderly is not a disease, but rather an aging process which is characterized by a decrease in body function. The elderly will experience a decrease in physical endurance so that they are more susceptible to diseases that cause death (Hartiningsih et al., 2022). Elderly is a population group aged 60 years and over. At that age, the elderly will experience a decrease in health and immune function, including decreased heart function, one of which is hypertension (Akbar et al., 2020).

Hypertension is a non-communicable disease which is an increase in systolic blood pressure of more than 140 mmHg and diastolic of more than 90 mmHg on two measurements with an interval of five minutes in a calm and well-rested state. Several risk factors that

cause hypertension include genetic factors, obesity, the habit of consuming high sodium, lack of physical activity, stress, smoking, and drinking alcohol (Sudin, Kartini and Haris, 2023).

World Health Organization (WHO) in 2021 estimates that as many as 1.28 billion adults aged 30 to 79 years worldwide have suffered from hypertension where around 46% are unaware, 42% are taking medication, and 21% can control it. (Darmin et al., 2023). The prevalence of hypertension in Indonesia according to the Indonesian Ministry of Health in 2019 increased with age, namely the prevalence of hypertension in the 55-64 year age group was 45.9%,

65-74 year old was 57.6%, and the >75 year age group was 63.8%. Central Java Province is a province that has the highest incidence of hypertension in all of Indonesia, which is 13.4%. (Khotimah, 2023). Therefore treatment is needed to reduce high blood pressure in the elderly.

Handling to treat hypertension can be done in two ways, namely pharmacological and non-pharmacological. Pharmacological treatment is treatment by giving diuretic-type drugs such as HCT, alpha, beta, and alpha-beta blockers such as propranolol, sympathetic blockers such as methyldopa, vasodilators such as hydralasin. While non-pharmacological treatment is treatment with relaxation therapy which is proven to be able to prevent the effects of stress by reducing heart rate and blood pressure and providing a sense of calm. (Susilawati, 2019).

One of the non-pharmacological treatments that can reduce high blood pressure is murottal therapy. Murottal therapy is a non-pharmacological treatment that can relieve stress and anxiety so as to increase happiness and calm. Listening to Murottal therapy is good for health and easy to reach (Hartiningih et al., 2022). According to research conducted by Susilawati (2019), Al-Quran surah Ar-Rahman murottal therapy is effective in lowering blood pressure in patients with hypertension.

Another non-pharmacological treatment that can be used to lower blood pressure is Slow Stroke Back Massage (SSBM) therapy. Massage is a very effective non-pharmacological therapy for lowering blood pressure in hypertensive patients. Massage is a

healing technique in the form of direct contact with the patient's body which provides a relaxing effect (Punjastuti and Fatimah, 2020). Research conducted by Pangastuti et al. (2022) shows that there is an effect of Slow Stroke Back Massage (SSBM) therapy on reducing blood pressure in elderly people with hypertension at the Gerokgak I Health Center.

In research Melastuti et al. (2020), there were significant changes in systolic and diastolic blood pressure after being given murottal and SSBM combination therapy. Murottal Al-Qur'an can reduce cortisol levels which is a stress hormone that contributes greatly to high blood pressure. SSBM can increase the hormone serotonin in the body, reduce stress and release the hormones norepinephrine and epinephrine which play a role in lowering blood pressure (Melastuti et al., 2020).

Based on the interview results, it is known that three elderly people in Kemutug Kidul Village have hypertension. One elderly said he had routinely taken hypertension medication but his blood pressure was still high, while two elderly said they had never taken hypertension medication. Elderly said he had never done therapy to reduce high blood pressure. Therefore, complementary therapy is needed to overcome the problem of hypertension in the elderly. So that makes the authors interested in providing gerontic nursing care to hypertensive patients by providing complementary therapy, namely a combination of murottal therapy and slow stroke back massage (TiMun Mas).

METHODS

The final scientific writing done by the author

uses the case study method in the form of the application of Evidence Based Practice (EBP) in nursing care for gerontic clients. The EBP applied by the author is a combination of murottal therapy and slow stroke back massage (TiMun Mas) to reduce blood pressure in the elderly. This case study was conducted for 3 days in Kemutug Kidul Village, Baturraden. Respondents in this study were elderly people with hypertension, totaling 3 people.

RESULTS AND DISCUSSION

Blood Pressure Overview

In the following, the results of descriptive statistics are presented for reducing the client's blood pressure after being given a combination of murottal therapy and slow stroke back massage (TiMun Mas) for 3 days.

Table 1. Blood pressure monitoring results (n=3)

Meeting to	Name	Systolic BP		BP Diastolic		Decline	
		Pre	Post	Pre	Post	systolic	Diastolic
1	Ms. Nk	184	176	105	97	8	8
	Mother Ns	178	165	101	94	13	7
	Mr K	181	170	107	106	11	1
2	Ms. Nk	183	171	100	95	12	5
	Mother Ns	157	156	88	82	1	6
	Mr K	180	168	95	95	12	0
3	Ms. Nk	161	148	92	88	13	4
	Mother Ns	145	144	83	80	1	3
	Mr K	135	131	80	76	4	4
Average drop in blood pressure						8	4

Table 1 showed the average decrease in the client's blood pressure pre and post-administration of TiMun Mas therapy for three days, that is, the systolic blood pressure decreased by 8 mmHg and the diastolic blood pressure decreased by 4 mmHg. The average blood pressure of the three elderly before therapy was 187 mmHg (systolic) and 102 mmHg (diastolic). On the third day after being given a combination of murottal therapy and slow stroke back massage (TiMun Mas),

the average respondent's blood pressure decreased to 141 mmHg (systolic) and 81 (diastolic). In this study, giving TiMun Mas therapy was proven to be able to reduce blood pressure from the 2nd level hypertension category to prehypertension.

In the following, the results of the effect of a combination of murottal therapy and slow stroke back

Variable	Median	Min-Max	Z	Sig. (2-tailed)
Systolic Blood Pressure	78	35-184	2,673	.008
Diastolic Blood Pressure	5	0-107	2,524	.012

massage (TiMun Mas) are presented to reduce blood pressure in the elderly.

Table 1 The effect of murottal and combination therapy slow stroke back massage (timun mas) to lower blood pressure in the elderly

Table 2 showed the results of the analysis using the Wilcoxon test obtained sig. (2-tailed) systolic value of 0.008 and diastolic value of 0.012 where both values are <0.05, which means that there is a difference between the results of pre and post therapy administration so that it can be concluded that there is an effect of giving a combination of murottal therapy and slow stroke back massage (TiMun Mas) on blood pressure in the elderly.

Based on the results of the case study, it was showed that three elderly people in Kemutug Kidul Village had hypertension. The three elderly people had hypertension for more than 5 years, two elderly people

complained that they sometimes had symptoms of dizziness and stiffness in the neck, while one elderly said they had never had these symptoms. After measuring the blood pressure of the elderly, it was found that the blood pressure of the three elderly people had an average of 187 mmHg (systolic) and 102 mmHg (diastolic) where the blood pressure results included in hypertension. Of the three elderly, it is known that one elderly routinely takes blood pressure-lowering medication while two elderly do not take blood pressure-lowering medication.

There are several factors that influence the disobedience of elderly people with hypertension to take blood pressure-lowering drugs including knowledge related to hypertension, family support, lack of motivation, and access to health services. The results of the interview revealed that of the two elderly people who did not take hypertension-lowering drugs, it was because no one took them to health care facilities. Compliance with treatment of hypertensive patients is important because hypertension is a disease that cannot be cured but must always be controlled so that complications do not occur which can lead to death.(Alam and Jama, 2020). Research result Akri et al. (2022) which shows that there is a significant relationship between controlled blood pressure and the level of adherence of hypertensive patients. However, this is not in line with the research conducted by Wirakhmi and Purnawan (2021) showed that there was no significant relationship between medication adherence and blood pressure.

Apart from medication adherence, there are other factors that influence hypertension in the elderly.

The risk factors for hypertension are divided into 2 groups, namely hypertension that cannot be changed and hypertension that can be modified. Modifiable hypertension includes smoking, obesity, a sedentary lifestyle, physical activity, dietary sodium intake, low potassium levels, and stress. While hypertension that cannot be changed includes age, gender, ethnicity, and heredity(Emi Inayah Sari Siregar, 2022). The results of the interview revealed that the two elderly people have a monotonous lifestyle where the two elderly do not work and are not busy.

Hypertension is called a silent killer where many sufferers do not know that they have hypertension(Suwanti, Purwaningsih and Setyoningrum, 2019). In hypertension, signs and symptoms are divided into two, namely asymptomatic hypertension where hypertensive sufferers do not feel any symptoms so that it often makes sufferers less motivated to seek treatment. In addition, there is hypertension with symptoms where there are symptoms that are felt such as headaches, dizziness, weakness, fatigue, anxiety, nausea and vomiting, epistaxis, and decreased consciousness(Syukkur, Vinsur and Nurwiyono, 2022). From the results of the interviews it was known that one elderly person did not feel any symptoms while two elderly had symptoms such as dizziness and stiffness in the neck.

The results of the Wilcoxon test showed that there was an effect of giving a combination of murottal therapy and slow stroke back massage (TiMun Mas) on blood pressure in the elderly with sig. (2-tailed) systolic value of 0.008 and diastolic value of 0.012 where both values are <0.05 , which means there is a

difference between the pre and post therapy results. These results are in line with research. Melastuti et al. (2020) which showed that there were significant changes in systolic and diastolic blood pressure after being given murottal and SSBM combination therapy.

Murottal therapy is the easiest healing instrument to reach. Listening to murottal therapy is very good for health. Murottal is a non-pharmacological treatment that can relieve stress and anxiety, thereby increasing feelings of happiness, thereby making the soul calmer (Hartiningsih et al., 2022). Listening to the Al-Quran will provide peace in the body because of the elements of meditation, autosuggestion, and relaxation contained in it. That sense of calm will then provide a positive emotional response which is very influential in bringing about positive perceptions. Positive perception in murottal will stimulate the hypothalamus to release endorphins which make a person feel happy. Then the amygdala will stimulate the activation and control of the autonomic nerves which consist of the sympathetic and parasympathetic nerves. Parasympathetic nerves function to slow the heart rate. Controlled autonomic nervous stimulation will cause the secretion of epinephrine and norepinephrine by the adrenal medulla to be controlled. The controlled hormone will inhibit the formation of angiotensin which can further reduce blood pressure (Mulianda and Umah, 2021).

Al-Quran is a non-pharmacological treatment by relieving stress, increasing happiness in life, decreasing levels of depression, anxiety, and sadness ending with peace of mind so that it can overcome various kinds of diseases. (Apriliani, Basri and Mulyadi,

2021). Research result Umam et al. (2023) showed that Al-Quran murottal therapy can reduce blood pressure in 2 hypertensive patients at Jendral Ahmad Yani Metro Regional General Hospital. This is in line with research conducted by Heni and Syifaa (2021) The results showed that there was an effect of murottal Al-Quran surah Ar-Rahman therapy on reducing blood pressure in hypertension sufferers.

Slow stroke back massage is a massage on the back or shoulders with an emphasis on the skin of the back area with slow strokes. Long, gentle strokes provide pleasure and comfort, while short, circular strokes are stimulating. The use of slow stroke back massage therapy will lower blood pressure. The advantages of slow stroke back massage therapy compared to other massage therapies are that this relaxation therapy is easier, safer to do for the elderly, simple, and inexpensive (Yuliyanto and Abdurrachman, 2021). SSBM is a massage that provides cutaneous stimulation with an emphasis on the back area, using stroking, petrissage, and friction techniques. SSBM stimulates nerves in the superficial skin which are then passed on to the brain in the hypothalamus which triggers the release of endorphins. Endorphins provide a relaxing effect which results in vasodilation of blood vessels so that blood pressure decreases (Surya and Yusri, 2022).

Slow stroke back massage has many benefits to the human body system. Besides being beneficial to the cardiovascular system, this therapy can be useful for reducing muscle pain, can stimulate skin cell regeneration to help the body's barrier, and can reduce insomnia in the elderly (Kusumoningtyas and

Ratnawati, 2018). Research result Pangastuti et al. (2022) shows that there is an effect of slow stroke back massage on decreasing blood pressure in elderly people with hypertension at the Gerokgak I Health Center.

The results of *observations* during the TiMun Mas therapy were that during the third therapy the client looked comfortable until he was sleepy and looked more refreshed when he finished giving TiMun Mas therapy. The results of the interviews with the three clients after the TiMun Mas therapy were that they said that the body became more relaxed, comfortable, able to sleep at night after previously having difficulty sleeping, and dizziness was reduced. The three clients said they were happy after being given the TiMun Mas therapy because they saw that the client's blood pressure had decreased, the symptoms of dizziness had decreased, and the body had become fresher.

LIMITATIONS

The limitation of this study is that murottal therapy does not use a headset or similar device, so that sounds from outside murottal therapy can still be heard by clients. In addition, the three elderly people said that they did not have personal cell phones so they could not listen to murottal when they wanted to do TiMun Mas therapy themselves.

CONCLUSIONS AND RECOMENDATIONS

Based on the results of a case study regarding the Effect of a Combination of Murottal Therapy and Slow Stroke Back Massage (TiMun Mas) to Lower

Blood Pressure in the Elderly, it can be concluded:

1. An overview of the elderly's blood pressure after being given a combination of murottal therapy and slow stroke back massage for 3 days, there was an average decrease in pre and post blood pressure by 8 mmHg on systolic blood pressure and by 4 mmHg on diastolic blood pressure. The average blood pressure of the three elderly before therapy was 187 mmHg (systolic) and 102 mmHg (diastolic). On the third day after being given a combination of murottal therapy and slow stroke back massage (TiMun Mas), the average respondent's blood pressure decreased to 141 mmHg (systolic) and 81 (diastolic).
2. The results of the analysis using the Wilcoxon test obtained sig. (2-tailed) systolic value of 0.008 and diastolic value of 0.012 where both values are <0.05 , which means that there is a difference between the pre and post results of therapy administration so that it can be concluded that there is an effect of giving a combination of murottal therapy and slow stroke back massage (TiMun Mas) on lowering blood pressure in the elderly

The suggestion that the researcher can convey in accordance with the results of the study is that a combination of murottal therapy and slow stroke back massage (TiMun Mas) is a therapy that is easy to do independently, inexpensive, and is efficient for lowering blood pressure in the elderly. Therefore, it is hoped that TiMun Mas therapy can be an alternative nursing

intervention to reduce blood pressure. Nurses can provide TiMun Mas interventions when carrying out nursing care and can be used as study material in improving health services by providing information about the effect of a combination of murottal therapy and slow stroke back massage (TiMun Mas) to reduce blood pressure in the elderly. For further research, the application of murottal therapy can use a headset or similar device to clients, so that the client can focus on listening to murottal without any noise from outside. The client's family is expected to be able to provide support to the client by implementing TiMun Mas therapy independently.

REFERENCES

- Akbar, F. *et al.* (2020) 'Karakteristik Hipertensi Pada Lanjut Usia Di Desa Buku (Characteristics of Hypertension in the Elderly)', *Jwk*, 5(2), pp. 2548–4702.
- Akri, N.T., Nurmainah, N. and Andrie, M. (2022) 'Analisis Kepatuhan Penggunaan Obat Antihipertensi Pasien Hipertensi Rawat Jalan Usia Geriatri terhadap Tekanan Darah', *Journal Syifa Sciences and Clinical Research*, 4(2), pp. 437–446.
- Alam, R.I. and Jama, F. (2020) 'Analisis Faktor yang Mempengaruhi Ketidakpatuhan Berobat Lansia Penderita Hipertensi di Wilayah Kerja Puskesmas Pampang', *Jurnal Ilmiah Kesehatan Pencerah*, 09(2), pp. 115–125. Available at: <https://stikesmu-sidrap.e-journal.id/JIKP/article/view/173>.
- Apriliani, E., Basri, B. and Mulyadi, E. (2021) 'Aplikasi Terapi Murottal Al-Quran Terhadap Tekanan Darah Pada Penderita Hipertensi Di Wilayah Kerja Puskesmas Nagrak Cianjur', *Jurnal Lentera*, 4(1), pp. 17–27. Available at: <https://doi.org/10.37150/jl.v4i1.1395>.
- Darmin *et al.* (2023) 'Fakta Gaya Hidup Lansia Dengan Hipertensi Diwilayah Kerja Puskesmas Tungoi', *Jurnal Promotif Preventif*, 6(1), pp. 158–163.
- Emi Inayah Sari Siregar (2022) 'Systematic Review Hubungan Pola Makan dengan Kejadian Hipertensi pada Lansia', *Jurnal Ilmiah PANNMED (Pharmacist, Analyst, Nurse, Nutrition, Midwifery, Environment, Dentist)*, 17(1), pp. 202–209. Available at: <https://doi.org/10.36911/pannmed.v17i1.1296>.
- Hartiningsih, S.N. *et al.* (2022) 'Terapi Murottal Berpengaruh terhadap Tekanan Darah dan Kecemasan pada Lansia Penderita Hipertensi', *Jurnal Penelitian Perawat Profesional*, 4(4), pp. 1129–1134.
- Heni, H. and Syifaa, A.N. (2021) 'Pengaruh Terapi Murottal Al-Qur'an Surah Ar-Rahman terhadap Penurunan Tekanan Darah pada Penderita Hipertensi', *Jurnal Kampus STIKES YPIB Majalengka*, 9(1), pp. 41–54. Available at: <https://doi.org/10.51997/jk.v9i1.97>.
- Khotimah, K. (2023) 'Gambaran Kejadian Hipertensi pada Lansia di Desa Adisara Kecamatan Jatilawang Kabupaten Banyumas Tahun 2022', *Jurnal Bina Cipta Husada*, XIX(1), pp. 37–46.
- Kusumoningtyas, D.N. and Ratnawati, D. (2018) 'Efektifitas Terapi Slow Stroke Back Massage terhadap Tekanan Darah pada Lansia di RW 001 Kelurahan Jombang Kecamatan Ciputat Kota Tangerang Selatan', *JIKO (Jurnal Ilmiah Keperawatan Orthopedi)*, 2(2), pp. 39–57. Available at: <https://doi.org/10.46749/jiko.v2i2.15>.
- Melastuti, E. *et al.* (2020) 'Combination Therapy: Murottal and Slow Stroke Back Massage (SSBM) Affecting the Blood Pressure of Hemodialysis Patients', *International Journal of Psychosocial Rehabilitation*, 24(7), p. 2020.
- Mulianda, D. and Umah, E.L. (2021) 'Penerapan Prosedur Terapi Relaksasi Benson dan Murottal Al-Qur'an Surah Ar-Rahman Ayat 1-78 terhadap Tekanan Darah pada Pasien Hipertensi Primer di RSUD Ungaran', *Jurnal Ilmu kedokteran dan Kesehatan Indonesia*, 1(3), pp. 12–27.

- Pangastuti, K.R.W.P., Putra, G.N.W. and Ridayanti, P.W. (2022) 'Pengaruh Terapi Slow Stroke Back Massage (Ssbm) Terhadap Penurunan Tekanan Darah Pada Lansia Penderita Hipertensi Di', *Jurnal Kesehatan MIDWINERSLION*, 7(September), pp. 39–44.
- Punjastuti, B. and Fatimah, M. (2020) 'Pengaruh Slow Stroke Back Massage terhadap Tekanan Darah pada Lansia dengan Hipertensi: Literature Review', *Jurnal Kesehatan Madani Medika*, 11(02), pp. 167–175.
- Sudin, M.S., Kartini and Haris, H. (2023) 'Faktor yang Berhubungan dengan Kejadian Hipertensi pada Lansia di Wilayah Kerja Puskesmas Pertiwi Kota Makassar', *Jurnal Promotif Preventif*, 6(1), pp. 37–47.
- Surya, D.O. and Yusri, V. (2022) 'Efektifitas Terapi Slow Stroke Back Massage terhadap Nyeri Kepala Pasien Hipertensi', *Jurnal Keperawatan Muhammadiyah*, 7(4), pp. 120–123.
- Susilawati, A. (2019) 'Pengaruh Terapi Murottal Al-Qur'an Surah Ar-Rahman terhadap Penurunan Tekanan Darah pada Lansia Penderita Hipertensi di PSTW Budi Luhur Kota Jambi', *Jurnal Akademika Baiturrahim Jambi*, 8(2), pp. 145–151. Available at: <https://doi.org/10.36565/jabj.v8i2.5>.
- Suwanti, S., Purwaningsih, P. and Setyoningrum, U. (2019) 'Pengaruh Senam Ergonomik terhadap Tekanan Darah Lansia dengan Hipertensi', *Jurnal Penelitian Perawat Profesional*, 1(1), pp. 1–12. Available at: <https://doi.org/10.37287/jppp.v1i1.15>.
- Syukkur, A., Vinsur, E.Y.Y. and Nurwiyono, A. (2022) 'Pemberdayaan Kader Lansia dalam Upaya Penatalaksanaan Hipertensi', *SELAPARANG: Jurnal Pengabdian Masyarakat Berkemajuan*, 6(2), p. 624. Available at: <https://doi.org/10.31764/jpmb.v6i2.7041>.
- Umam, K., Ayubbana, S. and Utami, I.T. (2023) 'Penerapan Terapi Murottal Qur'an terhadap Tekanan Darah pada Pasien Hipertensi di RSUD Jend. Ahmad Yani Metro', *Jurnal Cendikia Muda*, 3(3), pp. 378–385.
- Wirakhmi, I.N. and Purnawan, I. (2021) 'Hubungan Kepatuhan Minum Obat dengan Tekanan Darah pada Penderita Hipertensi', *Jurnal Ilmu Keperawatan dan Kebidanan*, 12(2), pp. 327–333. Available at: <http://jurnal.unmuhjember.ac.id/index.php/JMBI/article/view/3537>.
- Yuliyanto, A.T. and Abdurrachman (2021) 'Gambaran Penurunan Tekanan Darah pada Pasien Lansia dengan Hipertensi setelah Dilakukan Pemberian Slow Stroke Back Massage: Literatur Review', *Prosiding Seminar Nasional Kesehatan*, 1, pp. 456–463.