

# SLOW STROKE BACK MASSAGE (SSBM) THERAPY FOR REDUCING BLOOD PRESSURE IN HYPERTENSION PATIENTS: NARRATIVE REVIEW

Normaliyanti<sup>1\*</sup>, Rifa'atul Mahmudah<sup>1</sup>, Rian Tasalim<sup>2</sup>

<sup>1</sup>*Bachelor of Nursing, Faculty of Health, Sari Mulia University Banjarmasin*

<sup>2</sup>*Bachelor of Nursing, Faculty of Health, Sari Mulia University Banjarmasin*

*\*normaliyanti07@gmail.com*

## Abstract

Hypertension is a chronic condition when the blood pressure on the increase the blood vessels. Righ know management only focus on pharmacological treatment, in fact, non-pharmacological therapy is also needed in order to maximize the results to be achieved, one of which is through Slow Stroke Back Massage (SSBM) therapy. SSBM is a technique of giving back messages with oil or lotion which is done by rubbing slowly. SSBM therapy can provide a relaxing effect for patients, improve blood circulation, reduce the level of pain felt by patients, improve sleep quality, besides that SSBM can also be useful for lowering blood pressure. Objective: to determine Slow Stroke Back Massage therapy for reducing blood pressure in Hypertension patients. Methods: Narrative review research design. Narrative review sourced from Biomed Central, Google Scholar, Elsevier, Garuda Portal and PubMed identified through the Population, Interventions, Comparison, Outcomes and Study Design (PICOS) system approach. The number of articles used for this research narrative is 11 journals. The journal criteria used were filtered based on the title, abstract and keywords, namely slow stroke back massage therapy, lowering blood pressure, hypertension. Conclusion: Slow Stroke Back Massage therapy can be used in patients with hypertension by doing a massage for 10 minutes for 3 consecutive days and reduce systolic blood pressure by 15 mmHg and diastolic by 10 mmHg.

**Keywords:** Hypertension, Lowering Blood Pressure, Slow Stroke Back Massage Therapy, massage therapy

## Introduction

The current development in the health sector does not only emphasize the control of infectious diseases, but also seeks to overcome non-communicable diseases (PTM) (Rendy & Margareth, 2017). One of the non-communicable diseases that is a priority in the world of health is hypertension (Ansar, 2019). Hypertension or high blood pressure is a chronic condition when the blood pressure on the walls of the arteries (blood vessels) increases. Hypertension is a disease that always increases every year in various countries around the world (Anies, 2018).

World Health Organization (WHO) is estimated at 1.13 billion people with hypertension worldwide, most of them (two thirds) are in low- and middle-income countries (WHO, 2021). Data for Basic Health Research (Riskesdas) in 2018 the prevalence of hypertension by age 18

years is 34.1%. The estimated number of hypertension cases in Indonesia in 2018 was 63,309,620 people with the lowest prevalence of hypertension sufferers of 22.2% coming from Papua Province while the highest prevalence of hypertension sufferers came from South Kalimantan Province at 44.1% (Kemenkes RI, 2018 ).

The prevalence of hypertension sufferers in 2019 was 210,501 people. The highest prevalence of hypertension sufferers in South Kalimantan came from Hulu Sungai Tengah Regency as many as 18,581 people and the lowest came from Tanah Bumbu Regency as many as 2,896 people (Department of Communication and Information of South Kalimantan Province, 2020).

Blood pressure control is broadly divided into 2 types, namely non-drug treatment (non-pharmacological) and treatment with drugs (pharmacological) (Herlambang, 2013). Non-pharmacological therapy is treatment therapy without the use of drugs which is divided into approaches with ingredients (aromatherapy, sinshe), spiritual and supernatural approaches (meditation, yoga, reiki) and massage therapy (Pratiwi, 2017).

Massage therapy is not only useful for lowering blood pressure but in general it can also be useful for reducing pain, rehabilitation in sports accidents, reducing stress, depression, anxiety, increasing relaxation and improving health (Luqman, 2017). Massage therapy that has the benefit of lowering blood pressure includes Slow Stroke Back Massage (Ardiansyah, 2019).

Slow Stroke Back Massage (SSBM) is one of the relaxation therapies in the form of massage (massage) which can be useful for lowering blood pressure (Pinasthika, 2018). SSBM is a touch movement in the back area that causes a relaxing effect of muscles, tendons and ligaments which will increase parasympathetic nerve activity and stimulate the release of the neurotransmitter acetylcholine then the neurotransmitter acetylcholine inhibits sympathetic nerve activity resulting in systemic vasodilation and decreased contractility of the heart muscle which manifests in a decrease in heart rate, cardiac output and stroke volume which in turn causes a decrease in blood pressure (Pinasthika, 2018).

Based on the above background, the researchers are interested in conducting a study entitled "Slow Stroke Back Massage Therapy for Lowering Blood Pressure in Hypertensive Patients"

## **Materials and Methods**

Narrative review research design. Narrative review search strategy in this study is to use an electronic based that is accredited/indexed by Sinta Sinta such as Biomed Central, Portal Garuda, Google Scholar, Elsevier and PubMed. Search narrative reviews in this study using the

keywords "Slow Stroke Back Massage, Blood Pressure, Hypertension" and "Slow Stroke Back Massage, Slow Back Massage, Blood Pressure, Hypertension", 31 articles appeared.

The journal criteria used were filtered based on the Population, Interventions, Comparison, Outcomes and Study Design (PICOS) system, namely articles that the population is hypertensive patients, articles whose intervention is Slow Stroke Back Massage therapy, articles whose final results are about the purpose of this study, articles published in 2016-2021 and using Indonesian and English and obtained 11 articles.

## Results and Discussion

The results showed that from 11 journals that had been reviewed, all (100%) stated that slow stroke back messages could lower blood pressure. These studies include research by Kusumongtyas (2018), Pratiwi (2019), Febriani (2019), Yuniarti (2019), Ramadhan (2019), Kardiana (2018), Trisnadewi (2018), Wibowo (2017), Jayawardhana (2017). ), Septiari (2017) and Antari research (2019).

The research of Kusumoningtyas (2018), Pratiwi (2019), Yuniarti (2019), Kardiana (2018), Wibowo (2017), Jayawardhana (2017) and Antari research (2019) stated that there is an effect of slow stroke back massage in lowering blood pressure in patients hypertension ( $p$  value = 0.000). The Febriari Research (2019) Slow Stroke Back Massage that has been carried out on the three participants has decreased blood pressure. Ramadhan (2019) stated that blood pressure decreased in subjects 1 and 2 after being given a slow stroke back message intervention in hypertensive patients. Trisnadewi (2018) stated that there was a difference in the decrease in diastolic blood pressure after being given a slow stroke back massage intervention using ylang and lavender essential oils ( $p < 0.05$ ). Septiari's research (2017) shows that slow stroke back massage reduces blood pressure in hypertensive patients with a maximum value of 4.75 mmHg and 4.5 mmHg systolic and diastolic decreases, respectively.

The results of the studies in the article above, in general, show that by giving a slow stroke back message intervention to hypertensive patients, it can be useful for lowering the patient's blood pressure. This is in accordance with what was stated by researchers in reviewed journals that SSBM therapy can provide a relaxing effect for patients, improve blood circulation, reduce the level of pain felt by patients, improve sleep quality, besides that SSBM can also be useful for lowering blood pressure (Septiari, 2010). 2017). The massage technique in the form of a gentle gentle back massage intervention (SSBM) causes relaxation and decreases sympathetic nerve activity and increases parasympathetic nerve activity resulting in vasodilation of arteriolar

diameter, in addition to vasodilation of arteriolar diameter, nursing implications of SSBM can reduce blood pressure, body temperature and heart rate (Kusomoningtyas, 2018).

Based on the data from the research journal above, it shows that the research that has succeeded in reducing the blood pressure of hypertensive patients after being given the slow stroke back message intervention is the research from Febriani (2019). This could be because the sample of the study was postpartum women who experienced an increase in high blood pressure during delivery, which could only be a temporary increase in blood pressure so that postpartum women were not too worried about their condition so that after the slow stroke intervention, respondents of this study could more relaxed than other research respondents, besides that the number of samples in the study was less so that researchers in providing slow stroke back message interventions could be maximized.

Another reason that allows this study to lower blood pressure is because it was carried out in a hospital, which could be a special room that has been provided for massage which allows the room to be more comfortable than other research places, including elderly social homes, although many journals others who did not mention in detail the place/room the research was carried out.

Trisnadewi's research (2018) shows that the most successful research in reducing blood pressure in chronic hypertension patients, because in this study using ylang ylang essential oil which is known to contain eugenol which is beneficial for the nervous system to facilitate blood flow to the adrenal glands so that patients feel calmer and encourage a sense of well-being. like.

The slow stroke back message intervention in each study also has differences in carrying out the implementation procedures of this therapy. It is also possible to produce differences in the achievement of reducing blood pressure for each respondent. The implementation of slow stroke back message in general, most journals do it for 10 minutes for each massage but with different frequency and number of days.

Antari's research (2019) stated that the time for the slow stroke back message intervention was carried out 3 times a week for 4 weeks with 10 minutes reducing systolic blood pressure 4.95 mmHg and diastolic 5.42 mmHg, while Febriani's research (2019) stated that the time the implementation of the slow stroke back message intervention was carried out for 3 consecutive days to reduce systolic blood pressure by 15 mmHg.

One of the more detailed journals explaining the procedure and frequency of implementation of slow stroke back message intervention includes the Kusumaningtyas (2019) study which explains that his research on slow stroke back massage intervention was carried out for 3 weeks

which was divided into 12 meetings, each meeting carried out an intervention for 10 weeks. minute.

The results of the journal review also found that each researcher had differences in performing slow stroke back message interventions. This difference can be seen from the use of additional materials as lubricants for massage, this may affect the comfort of the respondents and of course will also affect the magnitude of the resulting decrease in blood pressure. However, not all journals mention the type of lubricant used.

Several journals that mention lubricants in massage include the research of Ramadhan (2019) which states that the slow stroke back message intervention was carried out with olive oil. Yuniarti's research (2019) conducted a slow stroke back message intervention with baby oil. Trisnadewi's research (2018) divides 2 groups in performing slow stroke back massage interventions, namely the group that uses ylang ylang essential oil and lavender essential oil.

Based on the data from the three journals, the research from Trisnadewi (2018), which reduced blood pressure the most, was conducting a slow stroke back message intervention using ylang ylang essential oil. The slow stroke back message intervention using ylang ylang essential oil lowers blood pressure more than using other oils due to the presence of ylang flower in the form of eugenol, which functions to regulate the adrenaline glands in the nervous system, which can eventually lead to calm and pleasure in respondents.

This is in accordance with what the researchers stated in the journal that ylang ylang essential oil has a better effect than using lavender essential oil because the eugenol effect of ylang ylang essential oil can reduce the work of the sympathetic nerves thereby increasing the parasympathetic nerves which in turn causes vasodilation caused by the presence of stimulation from slow stroke back massage. The effect of slow stroke back massage using ylang ylang essential oil is beneficial in increasing relaxation in hypertensive patients and can also be useful in lowering blood pressure.

## **Conclusion**

Based on the results of discussions and journal searches, it can be concluded that there was a decrease in blood pressure after the Slow Stroke Back Massage intervention by doing massage for 10 minutes for 3 consecutive days and could reduce systolic blood pressure by 15 mmHg and diastolic by 10 mmHg.

## **Acknowledgements**

Thanks to Sari Mulia University for allowing me to conduct research using the journal review method and thanks also to supervisors 1 and 2 Rifa'atul Maheasy, Ns., MSN and Rian Tasalim, Ns., M.Kep. who has guided in conducting this journal review research.

**Declaration of Interest Statement**

The authors declare that they have no conflict of interests.

## References

- Anies. 2018. *Penyakit Degeneratif*. Yogyakarta: Ar-Ruzz Media.
- Ansar, J. 2019. Determinan kejadian hipertensi pada pengunjung posbindu di wilayah kerja Puskesmas Ballaparang Kota Makassar. *Jurnal Nasional Ilmu Kesehatan*. [Internet]. 1(3). 28-35
- Antari, N. K. A. J. 2019. Intervensi *progressive muscle relaxation* lebih menurunkan tekanan darah dari pada *slow stroke back message* pada pasien hipertensi derajat i yang mengkonsumsi obat antihipertensi di Badung. *Sport and Fittnes Journal*. [Internet]. 7(1). 93-99. <https://ojs.unud.ac.id/index.php/sport/article/view/46046/27887>
- Ardiansyah. 2019. Metode message terhadap tekanan darah pasien hipertensi. *Jurnal Penelitian Keperawatan*. *Jurnal Penelitian Keperawatan* [Internet]. 5(1). 35-46. <http://download.garuda.ristekdikti.go.id/article.php?article=898340&val=14123&title=METODE%20MESSAGE%20TERHADAP%20TEKANAN%20DARAH%20PADA%20PENDERITA%20HIPERTENSI:%20A%20LITERATUR%20REVIEW> [Diakses 18 Desember 2020].
- Dinas Komunikasi dan Informasi Provinsi Kalimantan Selatan. (2020). Jumlah penderita penyakit hipertensi/ Tersedia pada: <https://data.kalselprov.go.id/index.php?r=JmlHipertensi/index> [diakses 30 Mei 2021].
- Febriani, E. 2019. Efektifitas *slow stroke back message* untuk hipertensi pada ibu nifas di RSUD Cilacap. *Wijaya Prosiding Seminar Nasional*. [Internet]. 1(1). 72-79. <https://ejournal.unugha.ac.id/index.php/jarlit/article/view/271/217>
- Herlambang. 2013. *Menaklukkan Hipertensi dan Diabetes*. Yogyakarta: Tugu Publisher.
- Jayawardhana, A. 2017. Efektifitas *slow stroke back massage* terhadap lansia dengan hipertensi. *Jurnal Keperawatan dan Kebidanan*. [Internet]. 1(2). 48-57. <https://nersmid.org/index.php/nersmid/article/view/13>
- Kardiana. 2018. Pengaruh *slow stroke message* terhadap perubahan tekanan darah pada penderita hipertensi di Desa Sumengko Kecamatan Jatirejo Kabupaten Mojokerto. [Internet]. 1(1). 1-8. <http://repository.stikes-pzni.ac.id:8080/xmlui/bitstream/handle/123456789/155/Septi%20Vita%20Kardiana.pdf?sequence=1&isAllowed=y>
- Kementerian Kesehatan RI. 2018. Hasil utama riset kesehatan dasar 2018. [Internet]. Tersedia pada: <http://www.depkes.go.id>

- Kusumoningtyas, D. N. 2018. Efektifitas terapi slow stroke back massage dalam menurunkan tekanan darah pada lansia di RW 001 Kelurahan Jombang Kecamatan Ciputat Kota Tangerang Selatan. *Jurnal Ilmiah Keperawatan Orthopedhi*. [Internet]. 2(2). 39-57 <https://ejournal.akperfatmawati.ac.id/index.php/JIKO/article/view/15/13>
- Luqman. 2017. Pengalaman pasien post stroke dalam menjalani terapi pijat alternatif di Kota Lhokseumawe. *Jurnal Ilmu Keperawatan*. [Internet]. 5(1). 1-12. <http://www.jurnal.unsyiah.ac.id/JIK/article/download/8763/7127>
- Pinashtika, S. 2018. Pengaruh terapi slow stroke back massage (SSBM) terhadap perubahan tekanan darah pasien stroke non hemoragik di Ruang Melatih 4 RSUP Dr. Soeradji Tirtinogoro Klaten. *Jurnal Keperawatan Global*. [Internet]. 3(1). 34-42. <http://jurnal.poltekkes-solo.ac.id/index.php/JKG/article/view/450/365>
- Pratiwi, N. K. D. A. 2019. Pengaruh terapi SSBM terhadap perubahan tekanan darah pada lansia dengan hipertensi di BSLU Mandalika NTB. *Prima*. [Internet]. 5(2). 7-13. <https://jurnal.madanimedika.ac.id/index.php/JMM/article/download/120/94/>
- Pratiwi, R. I. 2017. Analisis praktik klinik keperawatan pada pasien stroke non hemoragik dengan intervensi terapi pijat kaki menggunakan minyak lavender terhadap penurunan tekanan darah di ruang Stroke Center RSUD Abdul Wahab Syahrani Samarinda Tahun 2017 [Internet]. Tersedia pada: <https://dspace.umkt.ac.id/bitstream/handle/463.2017/372/KIAN-.pdf?sequence=1>
- Ramadhan. 2019. Penerapan *slow stroke message* pada pasien hipertensi di wilayah kerja Puskesmas Bekasi Jaya. [Internet]. 1(1). 1-9. <https://files.osf.io/v1/resources/bfkqd/providers/osfstorage/5e296093c19c5d002fedf9c1?action=download&direct&version=1>
- Rendy, M. C., & Margareth, T. H. 2017. *Asuhan Keperawatan Medikal Bedah dan Penyakit Dalam*. Yogyakarta: Nuha Medika.
- Roshifanni, S. 2016. Risiko hipertensi pada orang dengan pola tidur yang buruk. *Jurnal Berkala Epidemiologi*. [Internet]. 4(3). 408-419. <https://ejournal.unair.ac.id/JBE/article/download/1631/2545#:~:text=Koefisien%20korelasi%20r%20%3D%200%2C446%20artinya,yang%20mempunyai%20pola%20tidur%20baik>
- Septiari, P. 2017. Pengaruh slow stroke back message terhadap perubahan tekanan darah pada penderita hipertensi derajat 1 di Panti Werdha Omega Semarang. *Jurnal Manajemen Asuhan Keperawatan*. [Internet]. 1(1). 1-9. <http://jurnal.akper-whs.ac.id/index.php/mak/article/view/5/20>



- Trisnadewi, 2018. Efektifitas *slow stroke back message* dengan menggunakan minyak essensial kenanga dan minyak essensial lavender terhadap penurunan tekanan darah pada lansia dengan hipertensi. *Bali Medika Jurnal*. [Internet]. 5(2). 210-220. <https://balimedikajurnal.com/index.php/bmj/article/view/36/32>
- Wibowo, T. A. 2018. Pengaruh Slow Stroke Back Massage(SSBM) Terhadap Penurunan Tekanan Darah Pada Hipertensi Lansia. *Jurnal Ilmu Kesehatan*. [Internet]. 6(2). 119-131. <https://journals.umkt.ac.id/index.php/jik/article/view/172/73>
- World Health Organization (WHO). 2021. Hypertension <https://www.who.int/news-room/fact-sheets/detail/hypertension>
- Yuniarti, A. I. 2019. Pengaruh *slow stroke message* (SSBM) terhadap tekanan darah menopause penderita hipertensi. *Conference on Innovation and Application of Science and Technology (CIASTECH 2019)*. [Internet]. 1(1). 172-176. <https://publishing-widyagama.ac.id/ejournalv2/index.php/ciastech/article/view/1101/904>