JOURNAL OF COMPLEMENTARY NURSING
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# The Effect of Classical Music Therapy and Deep Breathing Relaxation Therapy on Lowering Blood Pressure in Hypertension Sufferers in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan Year 2022

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Research Article
Volume: 02
Issue: 02
Years: 2023

Editor: IJ

Received: 05/06/2023

Reviewed: 19/06/2023

Published: 22/06/2023

Available Article: (doi)
10.53801/jcn.v2i2.111



**Abstract**

**Background:** Hypertension is an abnormal increase in arterial blood pressure. Non-pharmacological therapeutic interventions can be performed such as classical music therapy and deep breathing relaxation therapy. Classical music therapy is to improve physical and mental quality with sound stimulation, melody, harmony, rhythm and slow style forms. The deep breathing relaxation technique is a therapy to regulate breathing in the abdomen with a slow and slow frequency, rhythmic and comfortable by closing your eyes when inhaling.
**Objective:** To determine the effect of classical music therapy and deep breathing relaxation therapy on reducing blood pressure in hypertensive patients.
**Methods:** The research design was a quasi-experimental (quasi-experimental) design with one group pretest-posttest design. The sample used was 15 respondents who met the inclusion and exclusion criteria. The data collection for this study used observation sheets and standard operating procedures for classical music therapy and deep breathing relaxation therapy (SOP).
**Results:** The results of the study using the Wilcoxon Sign Rank Test with the results of systolic and diastolic blood pressure before and after being given classical music therapy and deep breathing relaxation therapy showed a p-value = $0.000 < \alpha = 0.05$.
**Conclusion:** The results showed that there was an effect of classical music therapy and deep breathing relaxation therapy on reducing blood pressure in hypertension sufferers in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan.

**Keywords:** deep breathing relaxation, classical music therapy, hypertension

## Introduction

Along with the current developments, both consciously and unconsciously, humans tend to prefer a modern lifestyle. Modern lifestyles make people like things that are instant, as

a result, they are lazy to do physical activities, consume foods that contain lots of fat and high sodium and have a lifestyle with daily routines that cause stress, smoking habits consume alcohol so that it triggers various diseases, one of which is hypertension.[1] If the factors that affect hypertension are out of balance, there will be an abnormal increase in blood pressure in the arteries continuously for a period, if it continues, it can cause damage to the heart and blood vessels.[2] According to Tjandra in the Minister of Health's speech (2013) revealed that hypertension is the main risk factor for death caused by non-communicable diseases (PTM).[3]

According to the World Health Organization, about 1 billion people worldwide suffer from hypertension, of which two-thirds are in developing countries. Hypertension causes 8 million people to die each year, nearly 1.5 million people are in the Southeast Asian region. Around the world, around 972 million people suffer from hypertension and the incidence of hypertension has increased from year to year in every country. In America, About 50 million (21.7%), Thailand is 17% of the total population, Vietnam is 34.6%, Malaysia is 29.9%, Singapore is 24.9%. According WHO revealed that hypertension is the number 1 cause of 7 deaths in the world.[4] The prevalence of hypertension in Indonesia aged ≥ 18 years reached 25.8% for those who were taking medication 9.5% so the prevalence in Indonesia reached 26.5%. Based on the Health Profile Data for the Province of Central Kalimantan in 2016, the population aged ≥ 18 reached 84,274 cases and from 2015 to 2017, cases of hypertension in the province of Central Kalimantan have increased for three consecutive years. Based on data from the Katingan District Health Office in Central Katingan District, the prevalence of hypertension in 2018 reached 1,309 cases.[6]

Hypertension and its complications can be minimized by managing pharmacological and non-pharmacological therapies. Non-pharmacological therapies that can be performed include hypnosis, lavender aromatherapy, deep breathing relaxation therapy, music therapy, and so on. There are several types of music such as classical music, traditional music, jazz music, pop and hip-hop. According to Compbell (2002) said music can clear the mind and the sound of music can create physical forms that affect health, behavior and awareness. Music is a very unique stimulus that can affect the physical and psychological responses of listeners and the actions of listeners that effectively increase physiological relaxation with indications of decreased pulse, respiration and pressure. Giving music as an alternative to relaxation techniques is expected for hypertension sufferers to achieve a relaxed and emotionally stable condition so that Blood pressure also stabilizes.[7]

Various kinds of music therapy can be given to people with hypertension, one of which is a type of classical music. According to research by Chafin (2004) listening to classical music can reduce anxiety, stress so that the body becomes relaxed and there is a decrease in blood pressure. In addition to non-pharmacological therapies such as classical music therapy, non-pharmacological therapies that can reduce high blood pressure are deep breathing relaxation therapy. Relaxation is an effort to relieve physical tension, which in turn will relieve mental tension. One way of relaxation is respiratory, namely by regulating breathing activity. Breathing relaxation training is done by adjusting the breathing mechanism, either a slower and deeper tempo or rhythm and intensity. Regular breathing makes muscles flexible and can accept situations that stimulate emotional outbursts without stiffening them.[8]

Based on the results of a preliminary study conducted by an interview on October 18, 2021, in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan, 10 people suffered from hypertension caused by an unhealthy lifestyle, 2 people said they were diligent in consuming foods that were high in sodium, 2 people said they were diligent in eating fatty foods, 2 people said they were diligent in smoking, and 4 people said they were often stressed due to work factors. It was found that 5 out of 10 hypertension sufferers stated that

they only took blood pressure-lowering drugs when they felt dizzy. Researchers asked whether ever use music therapy. classical and deep breathing relaxation therapy to reduce high blood pressure, the result was that 8 out of 10 people with hypertension did not know the benefits of classical music therapy and had not used classical music therapy which could reduce high blood pressure. Then the researchers asked whether they had ever used deep breathing relaxation techniques to reduce high blood pressure. The results showed that 6 out of 10 people with hypertension had not used deep breathing relaxation techniques to reduce high blood pressure.

Based on this, the researchers were interested in knowing whether there was an influence between classical music therapy and deep breathing relaxation therapy on reducing blood pressure with a study entitled "The Effect of Classical Music Therapy and Deep Breathing Relaxation Therapy on Reducing Blood Pressure in Hypertension Patients in RW 001 Desa Samba Danum, Central Katingan District, Central Kalimantan.

## Method

This type of research is a Quasi Experiment (quasi-experiment) with a one-group pretest-posttest design. The population of RW 001 Samba Danum Village is 35 people. The number of samples used was 15 respondents in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan who met the inclusion and exclusion criteria. The data collection for this study used observation sheets and standard operating procedures for classical music therapy and deep breathing relaxation therapy (SOP). The implementation of classical music therapy and deep breathing relaxation therapy was carried out for 7 consecutive days, with classical music therapy with a duration of 15 minutes and deep breathing relaxation therapy with a duration of 10 minutes. Respondents were assessed for blood pressure twice, namely before and after being given classical music therapy and deep breathing relaxation therapy (pre and post-test).

The analysis used was univariate analysis to determine the frequency distribution of systolic and diastolic blood pressure before and after being given classical music therapy and deep breathing relaxation therapy. Bivariate analysis was used to determine the effect of classical music therapy on reducing blood pressure in hypertensive patients in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan and the effect of deep breathing relaxation therapy on reducing blood pressure in hypertension sufferers in RW 001 Samba Danum Village, Katingan Tengah District. Central Kalimantan. This research has passed the ethical test at the stikim ethics commission with number: 2674/Sket/Ka-Dept/RE/STIKIM/XII/2021

## Results

**Table 1.** Frequency Distribution of Systolic and Diastolic Blood Pressure Before and After Giving Classical Music Therapy and Deep Breathing Relaxation Therapy to Hypertension Sufferers in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan (n = 15)

| Pressure | N | Mean | Median | Modus | Standard Deviasi | Min-max |
|---|---|---|---|---|---|---|
| Blood | 15 | 148,67 | 150 | 140 | 8,338 | 140 -160 |
| Pre-test systole | 15 | 96,67 | 100 | 100 | 6,172 | 90 - 110 |
| Diastolic pretest | 15 | 121,33 | 120 | 120 | 6,399 | 110 - 130 |
| Systole post test | 15 | 76,67 | 80 | 80 | 4,880 | 70 - 80 |

From Table 1, it was obtained data that from 15 respondents the average systolic blood pressure before being given classical music therapy and deep breathing relaxation therapy in hypertensive patients in RW 001 Samba Danum Village, Katingan Tengah District, Central

Kalimantan was 148/96 mmHg and blood pressure was the most was 140/100 mmHg and the average systolic and diastolic blood pressure after being given classical music therapy and deep breathing relaxation therapy in hypertensive patients in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan was 121/76 mmHg and the highest blood pressure was 120/80 mm Hg.

**Table 2.** The Effect of Classical Music Therapy on Hypertension Patients in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan (n=15)

| Systolic Blood Pressure | | N | P |
|---|---|---|---|
| Post Pre | Negative Ranks | 15 | 0.000 |
| | Positive Ranks | 0 | |
| | Ties | 0 | |
| | Total | 15 | |

| Diastolic Blood Pressure | | N | P |
|---|---|---|---|
| Post Pre | Negative Ranks | 15 | 0.000 |
| | Positive Ranks | 0 | |
| | Ties | 0 | |
| | Total | 15 | |

Based on Table 2. The results of statistical tests using the Wilcoxon Sign Rank Test are related to data that are not normally distributed, the results of systolic and diastolic blood pressure before and after being given classical music therapy show a p-value = 0.000 < α = 0.05, which means H0 rejected Ha accepted which means there is a significant effect on systolic and diastolic blood pressure before and after being given classical music therapy in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan.

**Table 3.** The Effect of Deep Breathing Relaxation Therapy on Hypertension Sufferers in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan (n=15)

| Systolic Blood Pressure | | N | P |
|---|---|---|---|
| Post Pre | Negative Ranks | 15 | 0.000 |
| | Positive Ranks | 0 | |
| | Ties | 0 | |
| | Total | 15 | |

| Diastolic Blood Pressure | | N | P |
|---|---|---|---|
| Post Pre | Negative Ranks | 15 | 0.000 |
| | Positive Ranks | 0 | |
| | Ties | 0 | |
| | Total | 15 | |

Based on Table 3, the results of statistical tests using the Wilcoxon Sign Rank Test are related to data that are not normally distributed, the results of systolic and diastolic blood pressure before and after being given deep breathing relaxation therapy show a p-value = 0.000 < α = 0.05, which means H0 is rejected Ha is accepted, which means that there is a significant effect on systolic and diastolic blood pressure before and after being given deep breathing relaxation therapy at RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan. The statistical test concludes that there is an effect of deep breathing relaxation therapy on changes in systolic and diastolic blood pressure.

## Discussion

### Blood Pressure Before and After Giving Classical Music Therapy and Deep Breathing Relaxation Therapy to Patients with Hypertension in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan

Based on Table 1. The results of the study were conducted on 15 respondents in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan, before being given classical music therapy and deep breathing relaxation therapy, the average blood pressure was 148/96 mmHg, if classified as high blood pressure at The 15 respondents were in grade 1 hypertension. The lowest blood pressure was 140/90 mmHg and the high blood pressure was 160/110 mmHg. Researchers asked about things that might be related to factors that influence hypertension such as genetic factors, lifestyle, diet, smoking habits and other factors and after being given classical music therapy and breathing relaxation therapy the average blood pressure decreased, namely 121/76 mm Hg, when classified the blood pressure of the 15 respondents is at normal blood pressure.

This is in line with Andhika Mahatidanar H's research (2017) which showed that systolic blood pressure before being given classical music therapy obtained an average of 149.5 mmHg while diastolic blood pressure obtained an average of 90.7 mmHg and after being given classical music therapy the average systolic blood pressure is 145.2 mmHg and the average diastolic blood pressure is 86.4 mmHg.[9] Meanwhile, research conducted by Rita Dwi Hartanti (2016) regarding deep breathing relaxation therapy showed that the average systolic blood pressure before being given deep breathing relaxation therapy was 156.46 mmHg and the average diastolic blood pressure was 93 mmHg. After being given breathing relaxation therapy, the average systolic blood pressure was 138 mmHg and the average diastolic blood pressure was 86.46 mmHg.[10] This proves that classical music therapy and deep breathing relaxation as relaxation media are used to control blood pressure in people with hypertension.[11] Listening to classical music can have a psychophysical impact which creates a feeling of relaxation and tends to make the pulse constant and deep breathing relaxation also has health benefits for the body in lowering blood pressure such as getting a feeling of calm, reducing stress, and relaxing muscles.

According to researchers, the majority of the community in RW 001, Samba Danum Village, Katingan Tengah District, Central Kalimantan, before being given classical music therapy and breathing relaxation therapy, had higher blood pressure due to consuming unhealthy foods, not properly regulated stress patterns, and lack of physical activity. in physical fitness. This is in line with Rusdi & Isnawati's research (2009) which factors influence hypertension, namely that there are factors that can be changed and cannot be changed. These factors can be changed, such as stress, obesity, dietary salt and other activities, and factors that cannot be changed, such as age, gender and heredity.[12]

According to the researchers, before being given classical music therapy and deep breathing relaxation therapy, the respondent experienced headaches, dizzy eyes and difficulty sleeping, so the respondent appeared lethargic. One way to reduce blood pressure is by doing classical music therapy and deep breathing relaxation therapy.

According to the researchers, when giving the intervention, it was seen that 15 respondents followed the procedure well so that optimal results were obtained by doing classical music therapy and deep breathing relaxation therapy which can make the body and mind healthy and make a person release feelings of sadness and after being given classical music therapy and breathing relaxation therapy in the respondents there were changes in headaches, dizzy eyes and difficulty sleeping had begun to decrease. In this study, the minimum

and maximum blood pressure values after being given classical music therapy and deep breathing relaxation therapy were 110/80 mmHg – 130/80 mmHg. From a study of 15 respondents, after being given the intervention of classical music therapy and deep breathing relaxation therapy, it was lower than before being given the intervention of classical music therapy and deep breathing relaxation therapy in patients with hypertension in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan.

**The Effect of Classical Music Therapy on Lowering Blood Pressure in Hypertension Patients in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan**

Based on Table 2, the results of the Wilcoxon Sign Rank Test statistical test obtained a significant number with a p-value = 0.000 <0.05, which means that Ha is accepted, which means that there is an effect of classical music therapy on reducing blood pressure in hypertension sufferers in RW 001 Samba Danum Village, Katingan District Central Central Kalimantan. According to the researchers, there was an effect of giving classical music therapy in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan.

This study is in line with the study of Diyono et al (2015) concerning the effect of classical music therapy on reducing blood pressure in the elderly in Tarama Village, Sragen, Central Java, which showed that music therapy had an effect, indicating that respondents after being given classical music therapy experienced a decrease in blood pressure in mild hypertension, moderate with p = 0.000. Based on the theory, music is a unique stimulus in influencing the listener's physical and psychological responses and is an effective action to increase relaxation by decreasing pulse, respiration and blood pressure.[13] Research also conducted by Sarayar, Mulyadi and Palendeng (2013) giving classical music therapy for 15 minutes can reduce blood pressure in pre-hemodialysis patients with a p-value = 0.000 with an average reduction in systolic blood pressure of 12 mmHg and diastolic blood pressure of 11 .33 mm Hg.[14]

According to the researchers, of the 15 respondents, there was a decrease in systolic and diastolic blood pressure in respondents when listening to classical music for 15 minutes routinely respondents could concentrate, but needed time and a comfortable place and it was found that the majority of respondents did not have a family history of hypertension and the average respondent is a high school graduate so that the information conveyed by the researcher can be understood by the respondent in doing classical music therapy which can reduce tension and calm the mind, this can increase the feeling of relaxation in the respondent because there is a pleasant sensation when focusing his attention on the classical music he is listening to. Respondents listened to classical music regularly according to what was taught by the researchers, respondents felt happy doing it because it was easy to do and cost-free and useful in reducing perceived complaints.

**The Effect of Deep Breathing Relaxation Therapy on Lowering Blood Pressure in Hypertension Sufferers in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan**

Based on Table 3, the results of the Wilcoxon Sign Rank Test statistical test obtained a significant number with a p-value = 0.000 <0.05, which means that Ha is accepted, which means that there is an effect of deep breathing relaxation therapy on reducing blood pressure in hypertension sufferers in RW 001 Samba Danum Village, District Central Katingan, Central Kalimantan. According to researchers, there is an effect of giving deep breathing relaxation therapy in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan.

Deep breathing relaxation therapy plays a role in reducing high blood pressure. This is

in line with Yanti Anggraini's research (2020) which found that there were differences in systolic and diastolic blood pressure before and after the intervention of deep breathing relaxation techniques (p=0.000).[15] Relaxation techniques can be used when a person is healthy or sick, relaxation can be done effectively. This technique consists of slow abdominal breathing where a person can close their eyes and breathe slowly because deep breathing can help reduce tension headaches associated with stress, slows the heart rate, and reduces fatigue.[16] This research is also supported by research by Grossman, et al (2001) regarding deep breathing control which can reduce blood pressure, a study was conducted on 33 hypertensive patients who were divided into two groups, namely 18 hypertensive patients doing slow breathing with the help of interactive music which can reduce blood pressure. respiratory rate and 15 control patients with a walkman. The intervention was carried out for 10 minutes, the results showed that slow breathing can reduce systolic blood pressure by 7.5 mmHg and diastolic blood pressure by 4 mmHg.[17]

According to the researchers, of the 15 respondents, there was a decrease in systolic and diastolic blood pressure in respondents when doing deep breathing relaxation therapy for 10 minutes routinely respondents could concentrate, but needed time and a comfortable place and it was found that the majority of respondents did not have a family history of hypertension and the average respondent is a high school graduate so that the information conveyed by the researcher can be understood by the respondent in doing deep breathing relaxation therapy which can reduce tension in every physical and emotional aspect, this can increase the feeling of relaxation in respondents when focusing their attention on relaxation. Respondents did regular deep breathing relaxation therapy according to what was taught by the researchers, respondents felt happy doing it because the movements were easy to do and cost-free and useful in reducing the complaints they felt.

## Conclusion

Based on the research conducted, it can be concluded that there is an effect of classical music therapy and deep breathing relaxation therapy on reducing blood pressure in hypertensive patients in RW 001 Samba Danum Village, Katingan Tengah District, Central Kalimantan with a p-value = 0.000 < α 0.05.

## References


1. Febri I, Sari K, Majid YA, Balita TG. Pengaruh Terapi Musik Klasik Terhadap Penurunan Tekanan Darah Pada Pasien Hipertensi Di Panti Sosial Tresna Werdha Teratai Palembang. 2019;7:306–14.
2. Setiawan B. Riwayat Hipertiroid Terkontrol dan Hipertensi. J Medula. 2015;(4(2)):52–8.
3. Finasari & Setyawan. Perbedaan Terapi Musik Klasik dan Terhadap Tekanan Darah Pada Pasien Hipertensi Di RSUD DR.H Soewondo Kendal. J Ilmu Keperawatan dan Kebidanan. 2014;pp,1-11.
4. Robert D. Gambaran Faktor-Faktor Yang Berhubungan Dengan Kejadian Hipertensi Pada Guru Di SD GMIMIV Tomohon. Manado: Poltekkes Kemenkes; 2017.
5. Kemenkes RI. Profil kesehatan Indonesia. In Kementrian Kesehatan Republik Indonesia; 2018.
6. Dinkes Kalteng. Dinas Kesehatan Provinsi Kalimantan Tengah. Dinas Kesehatan. 2019;
7. Yulastari puti rania, Betriana F, Kartika IR. Terapi Musik Untuk Pasien Hipertensi. Pengetah perawat terhadap Pelaks timbang trima pasien. 2018;1(1):1–8.
8. Wiramiharja. Pengantar Psikologi Klinis. Bandung: PT Rafika Adhitama; 2007.
9. Andhika Mahatidanar H. Pengaruh Musik Klasik Terhadap Penurunan Tekanan Darah Pada Lansia Penderita Hipertensi. AgromedUnila. 2017;4 Nomor 2.
10. Rita Dwi Hartanti, Pandu D, Rifqi Ari fajar. Terapi Relaksasi Napas Dalam Menurunkan Tekanan darah Pasien Hipertensi. Ilm Kesehat. 2016;IX Nomor 1(ISSN 1978-3167).
11. Andri Setiawan. Musik Klasik Lebih Efektif Dibandingkan Relaksasi Napas Dalam Terhadap Penurunan Tekanan Darah. J Keperawatan. 2015;Volume 1 N.
12. Rusdi & Isnawati. Awas ! Anda Bisa Mati Cepat Akibat Hipertensi & Diabetes. Yogyakarta: Power Books (IHDINA); 2009.
13. Diyono et al. Efek Terapi Musik Untuk menurunkan Tekanan Darah Pada Pasien Hipertensi Di Desa

Taraman Sragen Jawa Tengah. J Ilmu keperawatan. 2015; Volume 3.
14. Sarayar C, Mulyadi, Palendeng H. Pengaruh Musik Klasik Terhadap Penurunan Tekanan Darah Pada Pasien Pra Hemodialisis Di Ruang Dahlia BLU RSUP Prof. Dr. R. D. Kandou Manado. Keperawatan. 2013;1(1):1–3.
15. Yanti A. Efektifitas Teknik Relaksasi Napas Dalam Terhadap Tekanan Darah Pada Pasien Hipertensi Di Jakarta. J JKFT Univ Muhammadiyah Tangerang. 2020;Vol 5 No.1(2502–0552).
16. Potter PA. Buku Ajar Fundamental Keperawatan: Konsep, Proses, dan Praktik, vol. 2. In Egc; 2006.
17. Grossman E, Grossman A, Schein, M H, Zimlichman R, & Gavish B. Breathing-Control Lowers Blood Pressure. 2001;