

THE EFFECT OF MUSIC THERAPY ON ANXIETY LEVELS ELDERLY WITH HYPERTENSION IN JATI MELATI VILLAGE PONDOK MELATI BEKASI

Endang Banon, Indriana Rakhmawati, Tien Hartini, Omi Haryati, Nurhalimah

Lecturer in the Department of Nursing, Health Polytechnic, Ministry of Health, Jakarta III

DOI: <https://doi.org/10.56293/IJASR.2024.6003>

IJASR 2024  
VOLUME 7  
ISSUE 4 JULY – AUGUST

ISSN: 2581-7876

**Abstract:** Hypertension is a disease that can appear at the age of 50 years (pre-elderly) to the elderly (74 years). For people with hypertension, the stressful conditions experienced can increase blood pressure. For this reason, therapy is needed to reduce or stabilize blood pressure so that hypertension can be controlled. Management of hypertension can be done by providing non-pharmacological therapy, one of which is by providing music therapy. This therapy can give calm and can reduce the anxiety level of older people. This research is quasi-experimental research with a one-group pretest-posttest design. The research was conducted in Jati Melati - Jatiwarna Pondok Melati Bekasi Village, with 30 respondents who met the exclusive criteria and were selected using purposive sampling. Data was collected using a questionnaire, and therapy was provided using a workbook. Before the research, respondents received an explanation and signed an agreement. Data analysis was carried out using the dependent t-test. The statistical test results obtained a p-value of 0.000, which means that providing music therapy can reduce the anxiety level of older people with hypertension. The benefits of research are to reduce anxiety levels in older people and as an evidence base for further research. Music therapy can be recommended as a therapy to reduce the anxiety level of older people with hypertension.

**Keywords:** hypertension, anxiety, elderly, music therapy

### Introduction

Ageing is a process that occurs naturally and cannot be avoided by everyone. The elderly population continues to increase along with progress in the health sector, marked by increasing life expectancy and decreasing death rates. This demographic development can impact the health, economic, and social fields. In Indonesia, to maintain the health of the elderly, those aged 50 years are categorized as pre-elderly because, at this age, many individuals are found to experience decreased body function and hypertension.

In Indonesia, the proportion of the elderly population continues to increase, and it is estimated that every year, the number of older people increases by an average of 450,000. Indonesia is among the top five countries with the most significant number of older people globally. According to Bappenas projections, the number of older people aged 60 will double (36 million) in 2025, so in 2050, it is estimated that there will be 60 million older people. The most significant number is young elderly (60-69 years), which reached 63.82 per cent, followed by middle elderly (70-79 years) at 27.68 per cent and old elderly (80 years and above) at 8.50 per cent.

As we get older, changes will arise due to the ageing process, which has the potential to cause physical problems. One of the diseases that occurs in the elderly is hypertension, which is a "silent killer" that can threaten the client's life. Hypertension is a non-communicable disease which is one of the leading causes of premature death in the world. WHO estimates that currently, the global prevalence of hypertension is 22% of the world's total population. Of these sufferers, only less than a fifth made efforts to control their blood pressure (Pusdatin Kemkes, 2019). In this regard, controlling anxiety and hypertension levels can be done by taking antihypertensive medication regularly and providing music therapy to prevent unwanted complications. Several studies on music therapy have proven significant in reducing levels of anxiety and hypertension.

Research result

Table 1. Distribution of Age Characteristics Year 2023

Variable	Frequency	%
Pre-elderly : 50-59 tahun	6	20
Elderly : 60-74 tahun	20	66.7
Old-elderly : 75-90 tahun	4	13.3

The results of the analysis showed that the highest age group was older people with an age range of 60 - 74 years, namely 20 respondents (66.7%)

Table 2. Distribution of Gender, Education Level, Length of Illness, Level of Anxiety Year 2023

Variable	Number	Percentage
Gender		
Male	2	6.7
Female	28	93.3
Level of education		
Elementary - Middle School	28	93.3
High School - University	2	6.7
Long time of illness		
Less than two years	8	26.7
More than two years	22	73.3
Anxiety Level		
Mild : skore 7 - 14	1	3.3
Medium : skore 15 - 27	28	93.3
Weight : skore 28 - 57	1	3.3

The most extensive gender distribution was female, with 28 respondents (93.3%).

The highest distribution of education levels was at the elementary – middle school education level, with 28 respondents (93.3%).

The distribution of the duration of illness was more than two years, with as many as 22 respondents (73.3%).

The distribution of the highest level of anxiety was at the mild anxiety level, with 28 respondents (93.3%).

Table 3. Differences in Anxiety Levels in the First Measurement and the Second Measurement Year 2023

Variable	Mean	SD	95% CI		t	p-value
			Lower	Upper		
Measurements 1 and 2	1.500	.509	1.310	1.690	16.155	<b>0.000</b>

The analysis results showed a significant difference between the scores of the first and second measurements before and after the intervention (p-value = 0.000). The statistical test results obtained a value of 0.000, so it can be concluded that there is a significant difference between the level of anxiety in the first and second measurements.

**Table 4. Influence of the characteristics of age, gender, education level, duration of illness and anxiety level Year 2023**

Variable	Mean	SD	95% CI		t	p-value
			Lower	Upper		
Age	.433	817	128	738	2.904	<b>0.007</b>
Gender	.433	568	221	646	4.176	<b>0.000</b>
Education Level	.433	568	646	221	4.176	<b>0.000</b>
Duration of Illness	.233	679	020	487	1.882	0.070

The analysis showed that respondents' average age was 0.433 (95% CI: 128-738), SD 817, with a p-value of 0.007. It can be concluded that age characteristics influence anxiety levels

The analysis results showed that the average gender of respondents was 0.433 (95% CI: 221-646), SD 568, with a p-value of 0.000. It can be concluded that gender characteristics influence anxiety levels

The analysis results showed that the average education level of respondents was 0.433 (95% CI: 646-221), SD 568, with a p-value of 0.000. It can be concluded that the characteristics of the level of education influence the level of anxiety

The analysis showed that respondents' average duration of illness was 233 (95% CI: 020-487), SD 679, with a p-value of 0.070. It can be concluded that the characteristics of the length of illness do not influence the level of anxiety

## Discussion

### 1. Respondent Characteristics

The respondents' characteristics included age, gender, education level, and length of illness.

- a. From the age analysis, which consists of 3 categories, more age results were obtained in the elderly category (60 – 74 years), namely 20 respondents (66.7%). Categories in the pre-elderly age group (50 – 59 years) and older people (75 – 90 years) are ranked below. Thus, it can be concluded that older people in the age group 60 – 74 years are more likely to experience hypertension. This condition will continue until older people enter the old age group. The thing that needs attention is how older adults with hypertension can maintain their health condition so that it remains in top condition and does not cause other complications.
- b. From the gender analysis, the results showed that women were more than men, namely 28 respondents (93.3%), because the number of women was more significant than the number of men, both overall in Indonesia and when carrying out research activities, only Few men were able to take part in these activities, namely two respondents (6.7%). This is possible because men still carry out various activities even though they suffer from hypertension, in contrast to women who stay at home more and carry out household activities, which can cause anxiety in themselves. It is easy for women to experience anxiety/anxiety.
- c. From the analysis of education level, the results obtained were that the level of education in the SD – SMP category was higher than the SMU – PT category, namely 28 respondents (93.3%). Elementary and middle schools still comprise most of Indonesia's educational system. A low level of education can trigger anxiety due to a lack of understanding about health, especially those related to hypertension and efforts to reduce hypertension through various methods, both through the provision of pharmacological and non-pharmacological therapy.
- d. From the analysis of the length of illness, the results obtained were that the majority had suffered from hypertension for more than two years, namely 22 respondents (73.3%). Based on the results of interviews, data was obtained that, on average, older adults who have suffered from hypertension for more than two years have received regular treatment from the Community Health Center or Hospital. Still, some older adults have only discovered that they have suffered from hypertension for the past two years. Even though

they have suffered from hypertension for more than two years and have received therapy, older adults still often experience anxiety and have difficulty reducing the level of anxiety they encounter. This is possible because other factors influence this condition.

### 2. Influence of anxiety levels in older people before and after giving music therapy

From data analysis on the first and second measurements, the results showed that the respondents' anxiety level was 1.500, SD 0.509, with a p-value of 0.000. This means that there is a significant difference between the level of anxiety in the first measurement and the second measurement. The music you listen to, whether classical or traditional music or other soft music, can reduce cortisol levels that trigger anxiety. This indicates that providing music therapy has a positive influence on reducing the anxiety level of older adults with hypertension. Thus, it can be concluded that music therapy affects reducing the anxiety level of older adults with hypertension. Based on the reduction in anxiety levels both before and following music therapy, there is a significant difference. Before giving Music Therapy, data on moderate anxiety levels was obtained from 28 respondents to 13 respondents, and after being given Music Therapy, 16 respondents did not experience anxiety.

According to Finasari (2014), the stimulation of listening to music can reduce cortisol levels, thereby reducing the anxiety experienced by older people. Herawati's research results (2018 in Awaln 2021) state that classical music that is played regularly, continuously and with a slow rhythm can cause calm, the heart rate follows the rhythm of the music and decreases anxiety. Based on research by Waryanuarita (2018), music can trigger the brain to release endorphins, increase dopamine levels, and help increase a sense of well-being, thereby reducing anxiety levels. Thus, it can be concluded that Music Therapy has a significant influence on reducing anxiety levels, as has been done by previous researchers.

### 3. Factors that influence the anxiety level of older adults with hypertension

Based on data analysis, the factors that influence the anxiety level of older people are known. From the four factors analyzed (age, gender, education level, and duration of illness), it was concluded that there was an influence of age, gender, education level and the anxiety level of the elderly. Meanwhile, for the duration of illness, it was concluded that there was no influence on the anxiety level of the elderly. Anxiety can cause the field of perception to become narrow, energy needs increase, and disorganization occurs, which can cause damage to function and changes in individual coping mechanisms to become maladaptive. Anxiety has positive and negative impacts. The positive effects of anxiety are known through increasing client motivation in learning to overcome the stressors they experience. However, on the contrary, if anxiety threatens self-integration and disrupts a person's physiological, cognitive, affective, behavioural and social functions, then this has a negative impact and requires immediate treatment. This negative impact will increase the blood pressure of older people and require further treatment, either through providing psychotherapy such as Music Therapy or administering pharmacology that is consumed regularly.

## Conclusion

In the elderly, hypertension with mental conditions can cause anxiety and increase blood pressure. The levels of anxiety experienced are mild anxiety, moderate anxiety and severe anxiety. Anxiety must be treated well because if there is an increase in anxiety, it can affect the physical and psychological function of older people. Therefore, treating anxiety in older adults with hypertension must be done immediately so that blood pressure does not increase. This treatment can be provided through psychotherapy, such as Music Therapy. This therapy can make older adults more relaxed both physically and psychologically. Increased anxiety in older adults with hypertension can trigger a stroke, which can threaten the client's life. The results of this study prove that there is a significant influence on the provision of Music Therapy in reducing the anxiety level of older adults with hypertension. Thus, music therapy can be recommended as a therapy to reduce anxiety levels in older adults with hypertension.

**Bibliography**

1. Allender, J.A., Rector, C., & Warner, K.D. 2014. Community and public health nursing promoting the public's health (8th Ed.). Philadelphia: Lippincott Williams & Wilkins.
2. Annisa, D.F. & Ifdil. 2016. Konsep Kecemasan (Anxiety) Pada Lanjut Usia (Lansia). *Jurnal Konselor Universitas Padang*, 5 (2), 93-99. <http://ejournal.unp.ac.id/index.php/konselor/article/download/6480/5041>.
3. Astuti, N. F., Rekawati, E., & Wati, D. N. K. 2019. Decreased blood pressure among community-dwelling older adults following progressive muscle relaxation and music therapy (RESIK). *BMC Nursing*, 18(Suppl 1), 36. <https://doi.org/10.1186/s12912-019-0357-8>.
4. Awaln, F. 2021. Pengaruh terapi musik terhadap penurunan tekanan darah pada pasien hipertensi. *Nusantara Hasanah Journal*. Juni. Vol. 1 Nomor 1.
5. Finasari, T. Y., Setyawan, D., Meikawati, W. 2014. Perbedaan Terapi Musik Klasik dan Musik yang Disukai terhadap Tekanan Darah pada Pasien Hipertensi di RSUD Dr. H. Soewondo Kendal. *Jurnal Ilmu Keperawatan dan Kebidanan (JIKK)* Vol 1 No 1 hal 1-10.
6. Koa Apner. 2020. Potensi terapi musik klasik menurunkan tekanan darah pada pasien hipertensi. *Media Komunikasi Kesehatan Husada*, Mei. Vol 1 Nomor 1.
7. Lumbantobing, VBL. 2016. Efektifitas terapi musik terhadap penurunan tingkat ansietas pada berbagai kondisi pasien : literatur review. *Jurnal Ilmu Keperawatan*. September. Vo. IV Nomor 2. Lembaga Penelitian & Pengabdian Masyarakat (LPPM) Universitas BSI Bandung.
8. Notoatmodjo. 2013. *Metodologi Penelitian Kesehatan*. Jakarta : Rineka Cipta.
9. Nursalam, 2020. *Metode Penelitian Ilmu Keperawatan*. Edisi 5. Jakarta : Salemba Medika.
10. P2PTM.Kemkes. 2014. *Hipertensi Tekanan Darah Tinggi. Pencegahan Penyakit Tidak Menular* Kementerian Kesehatan RI.
11. Pusdatin. 2019. *HIPERTENSI*. Pusat Data dan Informasi Kementerian Kesehatan R.I.
12. Sugiono. 2013. *Statistika untuk penelitian*. Bandung: Alfabeta.
13. Sugiyono. 2017. *Metode Penelitian Kombinasi*. Bandung: IKPI.
14. Sukmadinata. 2011. *Metode Penelitian Pendidikan*. Bandung : Remaja Rosadakarya.
15. Vitahealth. 2006. *Hypertension*. Jakarta: Gramedia Pustaka Utama.
16. Waryanuarita, I. 2018. Pengaruh pemberian terapi musik terhadap kecemasan pasien pre general anestesi di RS PKU Muhammadiyah Yogyakarta. *CARING*. September. Vol.7 No.2.
17. Yulastari, PR. 2019. Terapi Musik untuk pasien hipertensi : a literatur review. *Real in Nursing Journal*. Agustus. Vol 2. Nomor 2.