

**THE EFFECT OF INSTRUMENTAL MUSIC GUIDED IMAGERY THERAPY ON THE LEVEL OF HEADACHE
IN ELDERLY HYPERTENSION SUFFERERS IN TUBAN**

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ABSTRACT

Background: One of the most common degenerative diseases among the elderly is hypertension. Headaches are one of the symptoms of hypertension; if not addressed promptly, headaches in hypertensive patients can lead to sleep disturbances, anxiety, emotional instability, and ultimately affect the patient's quality of life. One non-pharmacological management that can be employed to address headaches is guided imagery therapy with instrumental music. The aim of this study is to analyze the effect of guided imagery therapy with instrumental music on the level of headaches in elderly hypertensive patients in Tuban. Method: The research design in this study is a quantitative pre-experimental using the one group pre-test post-test design method. The population in this study consists of elderly hypertensive patients experiencing headaches, totaling 25 elderly individuals, with a sample selected through purposive sampling technique, resulting in a sample of 23 elderly individuals. Result: The results of the conducted research showed that elderly individuals with mild headache levels after undergoing therapy for 3 consecutive days exhibited a decrease in pain levels. After being analyzed using the Wilcoxon test with a significance level of $\alpha < 0.05$, with a p-value of $0.000 < 0.05$, the result obtained was an Asymp sig (2-tailed) value of 0.000. Conclusion : It can be concluded that H1 is accepted, which means that guided imagery therapy with instrumental music has an effect on the level of headache in elderly hypertensive patients in Tuban. The guided imagery technique is a method that helps achieve deep relaxation, creating relaxation in various ways that can control the nervous system, ultimately lowering blood pressure, thereby alleviating headaches caused by elevated blood pressure.

1. INTRODUCTION

Hypertension is often referred to as the "Silent Killer" because sufferers can go for years without experiencing any disturbances or symptoms, as the symptoms of hypertension are asymptomatic. (Ridha et al., 2023). Factors that can influence high blood pressure include age, gender, obesity, stress, and smoking. Hypertension sufferers usually experience headaches, irritability, ringing in the ears, difficulty sleeping, shortness of breath, a heavy feeling in the neck, easy fatigue, and blurred vision. (Surahmawati & Novitayanti, 2021). Headaches due to hypertension are categorized as intracranial headaches, which are often suspected to be caused by abnormal vascular phenomena. (Pramestirini et al., 2023)

Headaches in hypertensive patients, if not treated, can lead to sleep disturbances, anxiety, emotional instability, and ultimately affect the patient's quality of life. (Pertami & Budiono, 2018 dalam Surya & Yusri, 2022). Therefore, in hypertensive patients who experience pain, non-pharmacological therapy aimed at reducing or alleviating pain needs to be administered. The 2018 Riskesdes results showed a hypertension percentage of 36.3% in East Java Province. (Dinkes Jawa Timur, 2021). In hypertensive patients, symptoms usually include headaches accompanied by a heavy feeling in the neck. Research conducted by Pertami et al. (2018) shows that 73% of hypertensive patients experience headaches, with 40% complaining of mild headaches, 28% of moderate headaches, and 5% of severe headaches. (Surya & Yusri, 2022). Based on secondary data obtained by the researcher from the Tuban District Health Office, it was found that out of 33 community health centers (Puskesmas) in Tuban District, Puskesmas Semanding ranked first in the number of elderly patients with

hypertension, with 673 men and 778 women. Tuban, became the village with the highest number of elderly patients with hypertension. Based on interviews conducted by the researcher with the village midwife of Bektiharjo, there were 25 elderly individuals who complained of headaches, 3 elderly individuals who complained of difficulty sleeping, 1 elderly individual who complained of shortness of breath, and 6 elderly individuals who complained of seeing spots when their blood pressure rose.

Headaches in hypertensive patients are caused by vascular damage to blood vessels. Pain arises as a defense mechanism for the body when tissues are being damaged, causing the individual to react by moving away from the pain stimulus. (Nurman, 2017 dalam Ferdisa & Ernawati, 2021). Hypertension can pose a serious threat to the quality of life of hypertensive patients if they do not receive proper and adequate management, both pharmacological and non-pharmacological. (Yusiana & Rejeki, 2015 dalam Nafiah et al., 2020). Lowering high blood pressure and accompanying headaches can be achieved through non-pharmacological therapy. One of the non-pharmacological therapies is relaxation techniques, among the many relaxation therapies that can be used in the management of hypertension is guided imagery relaxation therapy (Ridha et al., 2023). The management of hypertension can be carried out using guided imagery relaxation techniques accompanied by instrumental music. Guided imagery is effective in reducing pain, anxiety, lowering blood pressure, and accelerating healing. Guided imagery is a relaxation method that involves imagining places and events associated with pleasant relaxation feelings. These fantasies allow clients to enter a state or experience of relaxation (Kaplan & Sadock, 2010 in Hermansyah et al., 2023).

Guided imagery is often combined with music, meaning its implementation is accompanied by music. The effect of music is used to enhance the client's relaxation, making it easier to induce imagination or suggestion. This technique can effectively reduce pain and accelerate healing. (Susilaningsih, 2020 dalam Cahyanti & Hirmawati, 2021).

In 2023, Muhlisoh et al. conducted a study called "GURAME: Guided Relaxation Method to Promote Efforts in Reducing Pain Levels with Complementary Nursing Methods." The study's findings suggest that senior hypertensive patients' headaches can be lessened by audio-based gurami practice. In 2018, Prima Efi Ika Elyariza conducted a follow-up study titled "The Effect of Guided Imagery and Music (GIM) Therapy on Blood Pressure in Elderly Hypertensive Patients." Systolic and diastolic blood pressure levels varied before and after the therapy was given, according to the study's findings.

This research will add to the discussion and prove that guided imagery therapy with instrumental music can reduce headaches in hypertensive patients. The aim of this study is to analyze the effects of guided imagery with instrumental music on headache levels.

2. METODE

The research design used in this study is quantitative "pre-experimental" with the research method "one-group pre-post test design." Sample determination uses the purposive sampling technique, and the population of this study consists of elderly hypertensive patients who complained of headaches in November 2023 in Dusun Krajan Bektiharjo, totaling 25 elderly individuals. Subsequently, 25 elderly individuals will be selected based on inclusion and exclusion criteria, resulting in 23 elderly individuals who meet the inclusion and exclusion criteria. The inclusion criteria

in this study are (1) elderly men and women aged >60 years. (2) elderly individuals who frequently experience headaches with a history of hypertension. (3) elderly individuals with a compos mentis level of consciousness. (4) elderly individuals who are willing to be respondents in this study. The exclusion criteria are (1) elderly men and women who experience deteriorating health issues. (2) elderly individuals who have hearing impairments. (3) elderly individuals with physical limitations. (4) elderly individuals who do not complete the treatment. (5) elderly individuals who have emotional instability and intellectual limitations.

Elderly individuals who complain of headaches will be given therapy for 10-15 minutes according to the standard operating procedures. (SOP). The intervention was carried out for 3 consecutive days. The instrument used in this study is the numeric rating scale pain questionnaire, with the measurement scale being if the respondents can answer with a value of 0 No pain; 1-3 Mild pain; 4-6 Moderate pain; 7-10 Severe pain. Measurements were taken twice, pre and post. Data analysis using SPSS software includes: frequency distribution, percentage, Wilcoxon test with a significance level of 0.05.

3. RESULTS AND DISCUSSION

Table 1 Frequency Distribution of Headache Levels in Elderly Hypertensive Patients in Tuban Before Receiving Guided Imagery Therapy with Instrumental Music.

No	Headache Severity	Frekuensi (f)	Presentase
1.	Not Painful	0	0%
2.	Mild Pain	18	78,2%
3.	Moderate Pain	5	21,8%
4.	Severe Pain	0	0%
	Amount	23	100%

Based on Table 1 above, it can be seen that out of 23 (100%) respondents, the majority, 18 (78%), reported a mild headache level, a small portion, 5 (22%), reported a moderate headache level, and none (0%) reported a headache level of no pain or severe pain.

Table 2 Frequency Distribution of Headache Levels in Elderly Hypertensive Patients in Tuban After Receiving Guided Imagery Therapy with Instrumental Music.

No	Headache Severity	Frekuensi (f)	Presentase
1.	Not Painful	21	91.3%
2.	Mild Pain	2	8,7%
3.	Moderate Pain	0	0%
4.	Severe Pain	0	0%
Amount		23	100%

Source: Primary Research Data 2023

Based on Table 2 above, it can be seen that out of 23 (100%) respondents, almost all 21 (91%) respondents showed no headache pain, a small portion 2 (9%) of respondents showed mild headache pain, and there were no (0%) respondents who showed moderate and severe headache pain levels after therapy was administered.

Table 3 Frequency Distribution of the Effect of Guided Imagery Therapy with Instrumental Music on Elderly Hypertensive Patients in Tuban
Source: Primary Research Data 2023

Guided Imagery Therapy	Headache Severity				Amount
	Not Painful	Mild Pain	Moderate Pain	Severe Pain	
Pre-Test	0 (0%)	18 (78,2%)	5 (21,8%)	0 (0%)	23 (100%)
Post-Test	21 (91,3%)	2 (8,7%)	0 (0%)	0 (0%)	31 (100%)

Based on Table 3 above, it shows that the level of headache pain before being given guided imagery therapy with instrumental music in elderly hypertensive patients in Tuban, most respondents, totaling 18 (78%), had a mild headache pain level. After being given guided imagery with instrumental music, almost all respondents, totaling 21 (91%), had a headache pain level with no pain.

DISCUSSION

Identification of Headache Levels in Elderly Hypertensive Patients in Tuban Village Before Receiving Guided Imagery Therapy with Instrumental Music.

The results of the research conducted by the researchers show that the level of headache pain among 23 (100%) respondents before therapy was mostly mild pain at levels 1-3, where at this level, the elderly could still tolerate the pain without it disrupting their daily activities. The results of the study are in line with the findings of research conducted by Nadi Aprilyadi et al., 2021, titled "The Application of Guided Imagery to Reduce Headache in Hypertensive Patients at Siti Aisyah Regional General Hospital, Lubuklinggau City, 2021," which showed that after undergoing guided imagery therapy for three consecutive days, there was a reduction in headache scale. Factors that can increase and decrease pain can be seen from the behaviors exhibited by patients in altering the pain sensations they experience, such as various activities, rest, comfortable body positions, and the use of medications. When patients believe in certain things that can minimize the pain they experience, the pain will gradually subside. Someone with a positive mindset will tend to feel more comfortable and think clearly, making it easier to shift their focus away from the pain they are experiencing. (Pramestirini et al., 2023). In addition, factors that can influence

the occurrence of headaches according to Yastiti, 2020, are stress, blood pressure >140/90 mmHg, fatigue, anxiety, and lack of sleep. In the study on the elderly in Tuban Semanding, the researcher identified hypertension as a factor causing headaches.

The results of the researcher's interview with the respondents revealed that the hypertension experienced by the respondents was influenced by various risk factors, both controllable such as activity patterns, excessive salt consumption, sleep quality, and stress, as well as uncontrollable risk factors such as age, gender, and heredity. Based on the interview results, the most significant factors triggering headaches in elderly hypertension patients are physical activity and sleep quality. Thirteen elderly individuals reported having moderate levels of physical activity, stating that they often work in the fields from morning until late afternoon. Upon returning home, they do not immediately rest but instead engage in household chores such as washing and sweeping. Next, regarding sleep quality, most elderly individuals reported having mild sleep disturbances, where they go to bed after 10:00 PM and often wake up during the night. One of the uncontrollable risk factors for hypertension is genetic factors, which can cause families to have a higher risk of developing hypertension. Individuals with parents who have a history of hypertension have twice the risk of developing hypertension compared to individuals who do not have a family history of hypertension.

Therefore, residents of Tuban, who experience hypertension due to genetic factors, which cannot be changed, are expected to be able to control the resulting headaches by listening to music or by taking morning walks. Additionally, hypertensive patients with unhealthy lifestyles, such as a fondness for consuming salty foods and drinking coffee, should be able to maintain a

healthy diet by reducing excessive sodium intake and cutting down on coffee consumption. The pre-test results using the numeric rating scale questionnaire show that the majority of the elderly, totaling 18, experience mild headache pain at a scale of 1-3, while a small number of the elderly, totaling 5, experience moderate headache pain at a scale of 4-6. The provision of guided imagery therapy with instrumental music is expected to help reduce the headaches experienced by elderly hypertensive patients in Tuban Semanding.

Identification of Headache Levels in Elderly Hypertensive Patients in Tuban After Receiving Guided Imagery Therapy with Instrumental Music.

The results of the research conducted by the researchers show that the level of headache pain in elderly hypertensive patients in Tuban, after being given guided imagery therapy with instrumental music, almost entirely 21 (91%) of the 23 (100%) respondents were at a pain-free level. The results of this study are also supported by previous research conducted by Muhlisoah et al., 2023, titled "GURAME: Guided Relaxation Method to Promote Efforts in Reducing Pain Levels with Complementary Nursing Methods." The findings of that study indicate that audio-based gurami practice can reduce headaches in elderly patients with hypertension.

Guided imagery therapy with instrumental music is one of the relaxation techniques that can be used to reduce pain, stress, anxiety, and can also lower blood pressure in hypertension. Relaxation is an action to free the mind and body from tension and stress, thereby reducing pain. From the relaxation response, it works more dominantly on the parasympathetic nervous system, while the parasympathetic nerves function to control the heartbeat to make the

body relaxed. When the relaxation response is felt by the body, it will simultaneously slow down the heartbeat, making the pulse in pumping blood throughout the body more effective and resulting in a decrease in blood pressure. Guided imagery can influence the physiological process of blood pressure because relaxation through guided imagery can activate the parasympathetic nervous system. (Purqoti et al., 2020).

Guided imagery is a technique that combines directing someone to imagine pleasant things and using soft music at a certain volume. Guided imagery requires someone to imagine pleasant things, which will make them focus on things they like while ignoring the health problems they are experiencing, in this case, headaches. The focus of providing guided imagery by directing towards pleasant things is to enhance a positive outlook on the health problems being faced. (Aji et al., 2022). This research was conducted over 3 consecutive days with a duration of 5-15 minutes. On the first day, the researcher conducted a pre-test by administering a numeric rating scale pain questionnaire to the respondents. Before administering the therapy, the researcher first inquired about the respondents' jobs, physical activities, and sleep quality. From these questions, it was found that most respondents had moderate physical activity and most respondents had mild sleep disturbances. Next, the researcher provided guided imagery therapy with instrumental music, which was sourced from YouTube under the title "Slow, calm and peaceful instrumental music-smooth piano and guitar-relaxdaily N°055." On the first day, 18 respondents complained of mild headache pain and 5 respondents complained of moderate pain. On the second day, the researcher provided the same therapy, which was guided imagery therapy with instrumental music titled "Slow, calm and peaceful instrumental music-smooth

piano and guitar-relaxdaily N°055." On the second day, 11 respondents complained of mild headache pain. On the third day, the researcher conducted the same therapy again, and it was found that 2 respondents complained of mild headache pain. The results of guided imagery therapy with instrumental music on the respondents generally showed effective results, evidenced by the final condition of the respondents, where almost all of them no longer complained of headache pain.

After the intervention, the researcher conducted direct observations by providing the numeric rating scale pain questionnaire to the respondents for the post-test. The administration of pre-test and post-test was conducted over 3 days with 3 sessions, during the research process, respondents experienced a decrease in pain scale. Based on existing facts and theories, the researcher believes that there is a significant change in the pain scale experienced by respondents after being given guided imagery therapy with instrumental music. All respondents who had a mild pain scale on the first day showed a pain scale of 0 (no pain) on the last day, while almost all respondents who had a pain scale of 4-6 (moderate pain) on the first day showed a pain scale of 1-3 on the last day. (nyeri ringan). The administration of guided imagery therapy with instrumental music aims to help achieve deep relaxation, that is, to reach relaxation through various methods to control the nervous system, which can ultimately lower blood pressure, thereby alleviating headaches caused by elevated blood pressure. (Aji et al., 2022).

Analysis of effect of Guided Imagery Therapy with Instrumental Music on the level of headache pain in elderly patients with hypertension.

Data analysis in this study used the Wilcoxon test, and the statistical test results

indicate the influence of guided imagery therapy with instrumental music on the headache levels of elderly hypertensive patients in Tuban. From the research conducted over 3 consecutive days in Tuban, it was found that on the first day, the majority of 18 (72%) elderly hypertensive patients experienced mild headaches. After the therapy was administered on the first day, it was observed that the therapy had not been effective, as this was the first time the therapy was conducted, and most of the elderly patients did not yet understand what the researcher was doing and saying. On the second day, 11 elderly hypertensive patients reported experiencing mild headaches. On the second day of therapy, most of the elderly patients had begun to understand the therapy taught by the researcher. On the third day, a small number of 2 (9%) elderly patients reported mild headaches after receiving therapy from the researcher. By the third day, all the elderly patients had understood and could follow the therapy provided by the researcher well.

Based on Table 3, it shows that the level of headache pain in elderly hypertensive patients in Tuban, before being given guided imagery therapy with instrumental music, a small portion of 5 (22%) elderly had moderate headache pain levels and the majority 18 (72%) elderly had mild headache pain levels. Meanwhile, after being given guided imagery therapy with instrumental music, a small portion of 2 (9%) elderly had mild headache pain levels and the majority 21 (91%) elderly had no headache pain levels. The results of this study are also supported by previous research conducted by Muhliso et al., 2023, titled "GURAME: Guided Relaxation Method Promoting Efforts to Reduce Pain Levels with Complementary Nursing Methods." The findings of that study indicate that audio-based gurami practice can reduce headaches in elderly patients with

hypertension. The next study by Prima Efi Ika Elyariza, in 2018, titled "The Effect of Guided Imagery and Music (GIM) Therapy on Blood Pressure in Elderly Hypertensive Patients." The results of the study indicate that there were changes in systolic and diastolic blood pressure before and after the therapy was administered.

After being examined by the researchers through interviews with the elderly, factors emerged that influenced the provision of interventions not meeting the researchers' expectations. Some elderly individuals stated that they could not focus and follow the instructions well during the guided imagery therapy with instrumental music provided by the researchers, citing a lack of understanding of the language used by the researchers. As a result, some elderly individuals who did not understand the researchers' language required repetitions on their own to perform the therapy. Additionally, factors beyond the researchers' control that contributed to the recurring headaches included the respondents' physical activities and sleep quality. Most respondents reported having moderate physical activity, where they went to the fields from morning until late afternoon and, upon returning home, did not immediately rest but instead engaged in household chores such as cooking, washing, and cleaning. Meanwhile, most respondents also reported having mild sleep disturbances, where they went to bed after 10:00 PM and often woke up afterward. A small number of respondents reported having mild sleep disturbances, where they went to bed after 11:00 PM, often woke up afterward, and could not fall back asleep. This is a factor, besides high blood pressure, that can influence the occurrence of headaches.

Based on the research results, the level of mild headache pain after therapy was dominated by elderly individuals aged over 75 years. This was influenced by the limited

understanding of the elderly regarding the instructions given by the researcher during the therapy, as well as the hearing impairment that elderly individuals over 75 years old began to experience. Meanwhile, the elderly aged 60-74 successfully followed the guided imagery therapy with instrumental music. After the therapy, their pain level was at the no pain level, whereas before the therapy, 18 elderly individuals had a mild pain level. The elderly in Tuban Semanding, admitted that they rarely consume headache pain relievers because they are still able to tolerate the pain. During the study, all the elderly said they were not consuming headache pain relievers.

The guided imagery technique is a method that helps achieve deep relaxation, creating relaxation in various ways that can control the nervous system, ultimately lowering blood pressure so that headaches caused by high blood pressure can be alleviated. (Aji et al., 2022). verbal interaction experience that is more This therapy is not a substitute for medication but is necessary to shorten the duration of pain. The combination of relaxation therapy with the use of medications is an effective way to relieve pain, whether it is a headache or other types of pain. (Pramestirini et al., 2023). The significant changes indicate that guided imagery therapy with instrumental music has an impact on the elderly in Tuban Semanding, who experience headaches due to hypertension. The success of the intervention was due to the effective implementation of guided imagery therapy with instrumental music, carried out according to the intervention execution instructions in accordance with the Standard Operating Procedure. (SOP).

The success was also aided by the cooperative attitude of the elderly, who followed the researcher's instructions with joyful enthusiasm and sincerity. The success

of guided imagery therapy with instrumental music has a positive impact on the level of headache pain in the elderly in Tuban.

4. CONCLUSION

Based on the data obtained by the researchers through distributing questionnaires in the pre-test and post-test, followed by an editing process that involves selecting the collected data and reviewing the answers. The next step involves coding each variable according to the operational definitions. This indicates that there is an effect of Guided Imagery Therapy with Instrumental Music on the level of headache pain in elderly patients with hypertension.

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