

## Research Article

# The Effect of Onang-Onang Instrumental Music Therapy on Elderly With Insomnia

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## Abstract.

Sleep disorders that are often experienced in the elderly, namely insomnia. Sleep disturbance (insomnia) will cause drowsiness throughout the day which will affect daily activities and general health. Drowsiness is a risk factor for accidents, this condition also causes various bad effects, including stress, emotional disturbances, which will lead to a decrease in the quality of life in old age. The purpose of this study was to determine the effect of onang-onang music on insomnia in lanisa. This type of research is quantitative and the research design used a Quasi Experiment with a pre-test-post design. The population in this study were all elderly in the working area of Pijorkoling Health Center, Padangsidempuan City. The sample in this study was determined by using the Accidental Sampling technique so that the results were 17 respondents. The statistical test used is the Wilcoxon test. The results showed that there was an effect of onang - onang music therapy on decreasing the insomnia scale after the intervention with a P-value of 0.000, the result was <0.05. The results of this study are expected to be used as an alternative therapy for the elderly with insomnia.

**Keywords:** Music therapy; Onang-onang instrumental; Insomnia

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## 1. Introduction

Sleep disorders that are often experienced in the elderly, namely insomnia. Sleep disturbance (insomnia) will cause drowsiness throughout the day which will affect daily activities and general health. Drowsiness is a risk factor for accidents, falls, decreased stamina, and economically reduces one's productivity [1]. In the world, the prevalence rate of insomnia in the elderly is estimated at 13-47% with a proportion of about 50-70% occurring at the age above 65 years. An Aging Multicenter study reported that 42% of 9000 elderly people over the age of 65 experience symptoms of insomnia [2].

In Indonesia, the prevalence rate of severe insomnia in the elderly is around 67%. Meanwhile, as many as 55.8% of the elderly experienced mild insomnia and 23.3% of the elderly who experienced moderate insomnia at the Sanglah Geriatric Polyclinic [2]. The United Nations (UN) projects that the elderly population in 2005 - 2025 will increase

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by around 77.37 percent. Indonesia as one of the highest contributing countries to the percentage increase in the number of elderly people in the world. Even the data from the US census bureau estimates that Indonesia will experience the largest increase in elderly citizens worldwide in 1990-2025, namely 414% [3].

In North Sumatra, the number of elderly people experiencing insomnia is around 5.75% of the total population[4]. According to data from the North Sumatra Provincial Health Office and the North Sumatra Statistics Agency, the number of elderly people reaches 6.78%. The prevalence of sleep disorders in the elderly is quite high, around 67%. Sleep disorders affect 50% of people aged 65 years or over who live at home and 66% of people who live in long-term care facilities [5].

Music therapy makes the brain release dopamine (a hormone related to the brain system, providing a feeling of pleasure and strengthening to motivate someone to proactively do certain activities. This comfortable, calm and relaxed condition will make the elderly have the desire to sleep. fall asleep when a person feels comfortable and relaxed. This condition is what sleep needs for the elderly, so that the elderly do not have difficulty sleeping [6]. Music used for therapy in insomnia is slow instrumental music in which the subject is asked to lying on a flat place or on a long chair or bed then asked to listen to music that has been determined for 30 minutes through a loudspeaker connected to a laptop computer [7].

Music can reduce activity of the sympathetic nervous system, reduce anxiety, blood pressure, heart and respiratory rate and may have a positive effect on sleep through relaxation of muscles and distraction of the mind [8]. Therefore, the use of music can be beneficial for people with sleep problems[9].

Traditional music is music whose repertoire, structure, idioms, instrumentation and style and basic elements of its composition - rhythm, melody, mode or scale are not taken from a musical system originating outside the culture of the people who own the music in question. In other words, traditional music is music that is rooted in the traditions of one or several tribes in a certain area. The traditional music of the people of North Sumatra is music that is rooted in the traditions of tribes or ethnic groups in North Sumatra, namely: Toba Batak, Simalungun, Karo, Pakpak, Mandailing, and AngkolaSipiriok, Malay Tribe (including Langkat, Deli, Serdang ,Asahan, Kota Pinang, Batubara), Coastal and Nias. (Other tribes, such as Javanese, Minang, Aceh, Sundanese, Tamils, and others were not included because they were considered immigrants in North Sumatra).

Traditional Onang-Onang instrumental music is usually used in the context of marriage rituals, where the Onang-Onang instrumental music provides advice or life messages to individuals who are married, Onang-Onang music can also be used as a form of advice from parents to their children and overall music. Onang-Onang instrumental can only be performed by individuals who have a higher tondi (soul or position)[10].

From the results of previous research on the effect of Javanese music therapy on reducing insomnia levels in the elderly at the Magetan Elderly Social UPT, the results showed (p-value = 0.001) this indicated that the results of the study indicated that there was an effect of Javanese music therapy on reducing insomnia levels in the elderly [1].

Based on a preliminary survey conducted by researchers at the Pijorkoling Health Center, the number of elderly people experiencing insomnia was 25 people. Based on the results of interviews conducted with

## 2. Methode

### 2.1. Study Design and Samples

This type of research is quantitative with quasi-experimental design, using a one group pretest and posttest design. The population in this study were all elderly who experienced insomnia based on medical record data at Pijorkoling Health Center, Padangsidimpuan City, and sampling was carried out by convenient sampling with 17 elderly for 2 months from July to August 2020. Measure The data was collected using a tool, namely by using a questionnaire, namely the insomnia rating scale.

### 2.2. Analysis

The statistical test used to determine the change in the quality of sleep of the respondent before and the quality of sleep of the respondent after being given onangonang instrumental music therapy was carried out by the Wilcoxon test.

## 3. Result

TABLE 1: Frequency Distribution of Respondents Characteristics of Respondents.

| Characteristics     | Frequency (n) | Percentage (%) |
|---------------------|---------------|----------------|
| Gender Man Woman    | 6 11          | 35,5 64,7      |
| Age 60 - 65 66 - 72 | 4 13          | 23,5 76,5      |

### 3.1. Univariate Analysis

Based on the results of the study, data shows that the majority of respondents with the elderly gender are women, namely 11 respondents (64.7%). The majority of the elderly are 66 –72 years old with a total of 13 respondents (76.5%)

TABLE 2: Levels of Insomnia in the elderly.

| Insomnia  | Pretest | Posttest |
|---|---------|----------|
| Mild Insomnia Moderate Insomnia Severe Insomnia | 2 14 1  | 16 1 -   |
| Total   | 17      | 17       |

Based on the table above, the results show that there is 1 person suffering from severe insomnia, 14 moderate insomnia and 2 mild insomnia. After giving onang-onang instrumental music therapy, the results showed that the elderly who experienced severe insomnia experienced a decrease to moderate insomnia, while the elderly who experienced insomnia were experiencing a change to moderate insomnia. However, there were 2 elderly who experienced mild insomnia did not experience changes in insomnia.

TABLE 3: Description of Insomnia Scale in the Elderly.

| Variable | Mean  | Deviation Mean | Median | SD    | Min   | Max   | N  |
|----------|-------|----------------|--------|-------|-------|-------|----|
| Pretest  | 31,47 | 12,65          | 30,00  | 4,584 | 24 20 | 40 28 | 17 |
| Posttest | 24,06 |                | 24,00  | 2,817 |       |       | 17 |

Based on the frequency distribution table, the average value for the pre test is 31.47 with the maximum value is 40 and the minimum value is 24, while for the post test the average value is 24.06 with the maximum value is 28 and the minimum value is 20.

### 3.2. Bivariate Analysis

From the results of statistical tests the effect of music onangonang therapy on insomnia in the elderly. By using the Wilcoxon test, the results obtained P = 0.000, the value is <0.05, so it can be concluded that there is an effect of onang-onang music therapy on insomnia in the elderly.

TABLE 4: Statistical Test Results of the Effect of Onang-Onang. Instrumental Music Therapy on Elderly with insomnia.

| Variable | N  | Mean  | SD    | pValue |
|----------|----|-------|-------|--------|
| Pretest  | 17 | 31,47 | 4,584 | 0,000* |
| Posttest |    | 24,06 | 2,817 |        |

## 4. Discussion

Based on the results of the frequency distribution on the gender of the respondents, it was found that the majority of the elderly who experienced insomnia were female. This is in line with the results of research by [11] entitled Factors Affecting the Incidence of Insomnia in Neurology Polyclinic DR. M. Djamil Padang, and the research was conducted on 100 people, most of whom were women (51%).

The results of data analysis showed that the majority of elderly who experience insomnia are above 66 years. According to [12], stating that the older a person is, it will cause a reduction in the effectiveness of sleep, namely 70% to 80%. It was also found that the incidence of insomnia is higher in older people, where older people are also more at risk of serious sleep disorders.

After being given onang-onang music therapy to the elderly 5 times in a row given before going to bed, the results of statistical tests using the Wilcoxon test were obtained with the results of  $P = 0.000$ , the value was  $<0.05$  so it could be concluded that there was an effect of onang-onang instrumental music therapy. against insomnia in the elderly.

Insomnia in the elderly is a condition where individuals experience a change in the quantity and quality of their resting patterns that cause discomfort or interfere with the desired lifestyle. Sleep disturbance in the elderly if not treated immediately will have a serious impact and will become a chronic sleep disorder. Physiologically, if a person does not get enough sleep to maintain a healthy body, there can be effects such as forgetfulness, confusion and disorientation [13]. According to [5] Listening to music has been a relaxation method that is often used to overcome sleep difficulties. Music was chosen as an alternative because music is an easy way to distract, music is simpler, easy to understand and almost everyone likes it. Music is useful for helping elderly people who experience insomnia. Music therapy has the power to treat illness and disability experienced by everyone. When music is applied as a therapy, it can improve, restore, and maintain the physical, mental, emotional, social, and spiritual health of each individual. This is because music has several advantages, such as music that is universal, comfortable and fun, and structured. Intervention with music therapy can

effectively change the threshold of the brain under stress to be physiologically more adaptive[14].

According to the assumption of researchers listening to music before bedtime can improve sleep quality because when listening to music the body will feel calm. In providing music therapy, there are several things that must be considered, one of which is the type of music that will be given. Onang-onang instrumental music therapy is traditional music that is still used in the traditional wedding ceremonies of the Batak Tribe, especially the MandailingBatak. The onang-onang music that is played is usually accompanied by words that tell the history of a person's life journey from birth to adulthood. For some people of the MandailingBatak tribe, listening to onang-onang music can make the heart calm and even sad because they are reminded of the past. However, with the development of the era, the onang-onang music was made into onang-onang instrumental music which was no longer accompanied by words, so the music that was heard did not focus on listening to the words that were sung in the music but only listening to music that could make the heart become quiet.

This research is in line with the results of research on the lyrics of NyanyianOnang-onang, the cultivation of religious educational values is very clearly emphasized on the suggestion of practicing religion and submitting to the rules and laws of Allah. If every human being will respect each other in practicing their religion, then a harmonious relationship will be established and will make human life peaceful and happy because religious values are the relationship between humans and God as a source of peace and happiness in the world [15].

## 5. Conclusions

The data contained in this study were collected directly by researchers using valid and accountable measuring instruments. Researchers did not experience significant obstacles and problems during the research process starting from the permit application to the data collection and analysis process. So far the research has been running smoothly according to the research team who already have their respective duties. This research has been approved by the Health Research Ethics Commission, Faculty of Nursing, University of North Sumatra and is feasible to be carried out on respondents

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