



## NATURAL SOUND MUSIC THERAPY ON SLEEP DISORDERS OF POST OPERATION PATIENTS

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### ABSTRACT

Sleep pattern disorders are disturbances in the quality and quantity of sleep due to external factors. In patients who have undergone surgery, sleep disturbances often occur, generally caused by pain (34.5%), fear of recurrent disease (17.24%), anxiety that it will not return to normal (10.3%), nurses' actions (10, 34%) and others (25%). Handling sleep pattern disorders using non-pharmacological therapy, one of which is natural sound music therapy. This study aims to determine the effect of natural sound music therapy on sleep disturbances in postoperative patients.

The design of this research is Quasi Experiment with Posttest Only Control Group design. The sample of this study amounted to 12 people in the control group and 12 people in the intervention group. Statistical test results obtained p value = 0.000 (p value <= 0.05) there is an effect of natural sound music therapy on postoperative patient sleep disturbances. The results of the analysis of the value of OR = 91,000, meaning that respondents who were given natural sound music therapy had 91,000 times the opportunity to have better sleep quality than respondents who were not given natural sound music therapy. surgery at the General Hospital. A Yani Metro City.

Keywords: Nature Sound Music Therapy, Post Surgery, Sleep Disorders

### Introduction

Surgery is a complex and stressful event, carried out in a hospital operating room, especially major surgery carried out with preparation, procedures and postoperative care requiring a longer time and more intensive monitoring.<sup>1</sup>

Surgery is a unique experience of planned changes in the body and consists of three phases: preoperative,

intraoperative, and postoperative. The postoperative phase begins when the client enters the post-anaesthesia room and ends when the wound has completely healed. During the postoperative phase, nursing actions include assessing the client's response (physiological and psychological) to surgery. Interventions to facilitate the healing process and prevent

complications, provide counseling and support to clients and loved ones and plan home care. The goal is to help clients achieve the most optimal health status<sup>2</sup>.

Surgery can involve many body systems directly and indirectly, and is a complex experience for the client, nursing diagnosis focuses on the wide variety of actual, potential, and collaborative problems. Potential problems that often arise postoperatively are respiratory problems, circulation problems, urinary problems, gastrointestinal problems, wound problems, and psychological problems of postoperative anxiety.<sup>2</sup>

In patients who have undergone surgery, sleep disturbances often occur. Healing of sleep pattern disorders can be done pharmacologically and non-pharmacologically. Music therapy is the use of music in a clinical,<sup>3</sup>educational, and social for clients or patients who need treatment, education or intervention on social and psychological aspects<sup>4</sup>. The application of music as therapy in health has been carried out since ancient times. At the beginning of World War I, music was used to help relieve pain. Floren Nightingale has used music therapy as part of the healing process for soldiers injured in the Crimean war. Music is part of the environment, therefore Florence Nightingale feels that it is the nurse's responsibility to control the environment as part of healing the patient.<sup>5</sup>

**Methods**

Quantitative research uses Degisn's Quasi Experimental research design. Researchers used the Posttest Only Control Group Design. The research was conducted

at Jend. A. Yani Metro City in April 2017 with a population of 80 patients. Accidental sampling was used on 12 samples in the control group and 12 samples in the intervention group. Sleep pattern disturbance was measured using the Pitsburg Sleep Quality Index (PSQI) instrument on the third postoperative day. Intervention Natural sound therapy was given for 15 minutes/day for 3 days. This research has been approved by the issuance of ethical clearance certificate No. 421/EA/ KEPK/2017.

**Results and Discussion**

**Table 1.Characteristics of Respondents by Age**

Variable	N	mean	median	SD	Min	Max
Age	24	48.42	45.50	14,917	23	78

Based on the table above, it is known that the age of the youngest respondent is 23 years and the oldest respondent is 78 years, with the average respondent being 48 years old.

**Table 2. Analysis of Sleep Quality in the Control Group**

Category	Frequency	Percentage
Well	1	8.3%
Not good	11	91.7%

From the table above, it is known that the postoperative sleep quality in the control group is in the good category as much as 1 (8.3%) and the poor category as much as 11 (91.7%).

**Table 3. Analysis of Sleep Quality in the Intervention Group**

Category	Frequency	Percentage
Well	10	83.3%
Not good	2	16.7%

From the table above, it is known that the postoperative sleep quality in the intervention group was in the good category as much as 10 (90.9%) and the bad category as much as 2 (15.4%).

Table 4. Analysis of the Effect of Natural Music Therapy on Postoperative Patient Sleep Quality

Group Type	Sleep Quality				Total	Pvalue	OR
	Well		Not good				
	N	%	N	%	N		
Intervention	10	83.3%	2	16.7%	12	0.001	55,000
Control	1	8.3%	11	91.7%	12		
Total	11	45.8%	13	54.2%	30		

The results of the analysis of the effect of natural sound music therapy on postoperative sleep pattern disturbances showed that there were 10 (83.3%) respondents in the intervention group who were given natural sound music therapy and had good sleep quality and there were 1 (8.3%) respondents in the control group. who were not given natural sound music therapy had good sleep quality. Statistical test results obtained p value = 0.001 (p value <= 0.05) means Ho is rejected.

Disturbance Sleep patterns in general are a condition in which individuals experience or are at risk of changes in the amount and quality of rest patterns that cause discomfort

or interfere with the desired lifestyle.<sup>6</sup>This disorder is seen in patients with conditions that show feelings of tiredness, irritability and restlessness, lethargy and apathy, dark areas around the eyes, swollen eyelids, red conjunctiva, sore eyes, fragmented attention, headaches, and frequent yawning or drowsiness. . The causes of this sleep pattern disorder include impaired oxygen transport, metabolic disorders, impaired elimination, the influence of drugs, immobility, pain in the legs, fear of surgery, environmental factors, which interfere, and others.<sup>7</sup>.

Research on the effect of natural sound music therapy on sleep disturbances in postoperative patients at RSUD Jend. A. Yani Metro City in 2017 with 24 respondents obtained the results of data analysis with the Chi-Square test, namely p value = 0.001 (p value <= 0.05) meaning Ho is rejected and OR = 55,000. This shows that there is a significant effect of natural sound music therapy on sleep disturbances.

According to In theory, postoperative patients often experience several Potential problems that often arise are respiratory problems, circulation problems, urinary problems, gastrointestinal problems, wound problems, and psychological problems postoperative anxiety. This postoperative anxiety causes disruption of sleep patterns in patients<sup>2</sup>. Nature sound music therapy is a non-pharmacological therapy that is useful for reducing sleep pattern disturbances.<sup>8</sup>Music therapy can overcome sleep pattern disorders because music therapy responds well to the human body.<sup>9</sup>In this book explaining that music therapy heals physically and psychologically in humans, researchers from The Neuro through MRI scans prove that the brain releases dopamine (a hormone associated with the brain system, providing feelings of pleasure and reinforcement to motivate someone to proactively carry out certain activities). when doing music therapy in a capacity that is not

excessive. This book also explains that the human body will respond if there is an incoming vibration or frequency. Every cell in the body is a sound resonator. New cells are formed in each organ of the body which causes the organ system to have its own frequency. When we are sick, the sound waves will give harmony to the diseased area so that the frequency of each cell can be renewed.

Although the results of this study indicate that there is an influence between natural sound music therapy on postoperative patient sleep disturbances, this does not mean that postoperative patient sleep disturbances are only influenced by natural sound music therapy, but there are several other factors that have the potential to reduce the problem of sleep disorders. sleep patterns (pharmacological therapy, family support, nursing actions during patient care and wound healing). The age of the respondent also affects this study, this is because the sleep needs of humans vary according to their age. The average respondent is 48 years old, the need for sleep in middle age or 40-60 years is 7 hours a day.<sup>10</sup>In this study, the majority of respondents who were given natural sound music therapy had sleep quantity of more than 7 hours, while respondents who were not given natural sound music therapy had less than 7 hours of sleep, this shows that natural sound music therapy can affect the sleep quantity of respondents.

#### **Conclusion**

Research on the effect of natural sound music therapy on sleep disturbances in postoperative patients at RSUD Jend. A. Yani Metro City in 2017 with 24 respondents obtained the results of data analysis with the Chi-Square test, namely  $p$  value = 0.001 ( $p$  value  $\leq$  0.05) meaning  $H_0$  is rejected and OR = 55,000. This shows that there is a significant effect between natural sound music therapy on sleep pattern disorders.

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