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Email : editorijhess@gmail.com

The Effect Of Traditional Lampung Music Therapy On Pain Response In Postoperative Patients At Airan Raya Hospital In Lampung

Emilia Septianti
Nursing Program, Mitra Indonesia University

*Corresponding Author
Email : septiantiupemilia@gmail.com

Abstract

Surgical procedures cause pain, as an unpleasant emotional and sensory experience caused by tissue damage. Traditional Lampung music therapy is a non-pharmacological strategy with the advantage that when the patient reaches full relaxation the perception of pain is reduced, so traditional music therapy (distraction) is very effective when used to treat pain in post-operative patients. The research aims to determine the effect of traditional Lampung music therapy on pain intensity in post-mammary ca surgery patients. This one group pre post test research design was without a comparison group (control) with a sample of 18 respondents. Data on the pain scale felt by respondents before being given traditional Lampung music therapy was moderate pain scale for 15 respondents (83.3%), severe pain scale for 3 respondents (16.7%). After being given treatment, the pain intensity became mild pain scale for 11 respondents (61.1%) and moderate pain scale for 7 respondents (38.9%). The conclusion is that there is a significant influence between traditional Lampung music therapy on pain intensity in post-mammary ca surgery patients, p value = 0.000. Patients can independently use this technique at home to reduce pain after surgery.

Keywords: ***Ca.Mammae, Postoperative Pain, Lampung Traditional Music Therapy.***

INTRODUCTION

Breast carcinoma (Ca Mammae) is a malignant tumor of the breast that invades the surrounding tissue and spreads throughout the body. Globally, breast cancer causes the highest mortality rate among women, and its epidemiology is spreading uncontrollably and evenly; the prevalence of breast cancer is quite high, ranging from international to domestic cases (Marfianti, 2021). The leading cause of death is among women diagnosed with breast cancer, with 2.1 million cases diagnosed.

In 2018, 627,000 women died, while breast cancer rates are higher among women in more developed regions and are rising in nearly every region globally (WHO, 2020). The prevalence of breast cancer in Indonesia is 0.5 per 1,000 women. Breast cancer also ranks as the fifth leading cause of cancer-related deaths worldwide, accounting for an estimated 6.63%. Breast cancer is the leading cause of cancer-related deaths among women in less developed regions at 14.3% and the second leading cause of cancer-related deaths in more developed regions at 15.4%. The prevalence of cancer in Lampung in 2015 was 1.6 per 1,000 residents. The incidence rate of breast cancer in the city of Bandar Lampung is 80 per 100,000 residents (Nurhayati et al., 2019).

Breast cancer treatment depends heavily on the type, location, and stage of the disease. There are several types of treatment for breast cancer patients, one of which is chemotherapy. Chemotherapy involves the use of specific drugs to kill cancer cells (Silalahi, 2019). Most cancer treatments, particularly chemotherapy for diseases that have metastasized, are administered for palliative purposes, where the goal of treatment is to extend life or improve quality of life (Silalahi, 2019). One of the management approaches provided to patients with breast cancer is surgical intervention. Nursing issues that may arise post-surgery include acute pain related to physical trauma (surgical procedure), risk of infection related to inadequate primary immune defense (skin integrity damage), and body image disturbance related to the effects of the procedure/treatment (surgery) (Muliati, 2021).

Pain is defined as a combination of an individual's predisposing factors and sensory and emotional experiences, as well as the discomfort caused by potential or actual tissue damage, which is described as such damage. To reduce the sensation of pain, both non-pharmacological and pharmacological interventions are employed. Pharmacological interventions involve the administration of analgesics, while non-pharmacological interventions include therapies such as music

therapy and other forms of therapy. Music therapy is a relaxation technique used to treat a disease by utilizing specific sounds or rhythms. The type of music used in music therapy can be tailored to the patient's preferences, such as classical music, instrumental music, and slow music (Pusptasari, 2022). The benefits of music therapy during the postoperative period include enhancing patient comfort, as relaxation helps reduce muscle spasms, alleviate anxiety, and increase parasympathetic activity (Fatmawati, 2020).

In a relaxed state, the body is stimulated to produce endorphins, which help alleviate pain, induce a sense of calm, and ultimately stimulate the body's organs to regenerate cells damaged by surgery (Purnomo, 2020). Music induces changes in consciousness through sound, silence, space, and time; it must be listened to for at least 15 minutes to provide therapeutic effects. The importance of managing postoperative pain stems from the fact that such pain can cause physiological changes such as increased blood pressure, elevated heart rate, vasoconstriction of blood vessels due to impaired blood flow to the body's organs, increased respiratory activity, significant fluid loss, and fatigue (Oktavia, Supriyadi, and Monalisa, 2023).

A study conducted by Nashruddin (2021) found that pain intensity decreased by 33% following a 15-minute session of music therapy using Mozart's classical music. This aligns with Tubagus's (2019) research, which indicated that music therapy is more effective in managing postoperative pain. By reducing postoperative pain intensity, this study will contribute to improving patients' quality of life. Patients will experience a faster and more comfortable recovery, which in turn will accelerate the rehabilitation process.

A preliminary study conducted by researchers through observation of post-operative breast cancer patients in the surgical ward of Airan Raya Hospital in Lampung found that, in previous studies, non-pharmacological therapies had already been administered in the surgical ward, such as deep breathing relaxation techniques and guided distraction techniques; however, the administration of traditional Lampung music therapy has not yet been implemented in the postoperative care ward of Airan Raya Hospital in Lampung. Traditional Lampung music therapy, as a non-pharmacological approach, has not been widely utilized in the management of postoperative pain. This study will provide new insights into the effectiveness of this therapy as a method that can help reduce the intensity of postoperative pain. The application of traditional Lampung music therapy can be an effective and sustainable alternative.

Based on the above phenomenon, the researcher became interested in examining the extent to which traditional Lampung music therapy affects pain intensity in postoperative breast cancer patients in the surgical ward of Airan Raya Hospital in Lampung.

Literature Review and Hypothesis Development

According to the World Health Organization (WHO) in 2019, breast cancer is the cancer with the highest percentage of new cases worldwide. The number of women with breast cancer has increased by 1.7 million, from the previous 6.3 million diagnosed with the disease over the past five years. Breast cancer is also the most common cause of death among women, accounting for 522,000 deaths (Rikesdas, 2019). Breast cancer is a malignant neoplastic disease characterized by abnormal growth of breast tissue that differs from the surrounding tissue. Cancer can begin to grow within the milk glands, fatty tissue, or connective tissue of the breast. (Sunarti et al., 2018). Breast cancer is a malignant disease in which cells grow and multiply uncontrollably; it can originate in the lobules, ducts, and connective tissue of the breast and eventually spread through the blood and lymph vessels to other organs in the body (Rahmi & Andika, 2022). Pain arises as a result of stimulation by algogenic substances on pain receptors, which are widely found in the superficial layers of the skin and in various tissues within the body, such as the periosteum, joint surfaces, skeletal muscles, and dental pulp. The algogenic substances that activate pain receptors include potassium ions (K+), hydrogen ions (H+), lactic acid, serotonin, bradykinin, histamine, and prostaglandins. The response to pain stimuli is mediated by nociceptors, which are unmyelinated free nerve endings capable of converting various stimuli into nerve impulses, interpreted by the brain as the sensation of pain. The cell bodies of these nerve cells are located in the dorsal root ganglia, or in the trigeminal ganglia for the trigeminal nerve,

and these cell bodies send one branch of nerve fibers to the periphery, while another branch goes to the spinal cord or brainstem. During the inflammatory process, nociceptors become more sensitive, leading to persistent pain. The series of processes involved, from tissue damage as the source of the pain stimulus to the perception of pain, is an electrophysiological process known as nociception. There are four processes in nociception: transduction, transmission, modulation, and perception (Bahrudin, 2017).

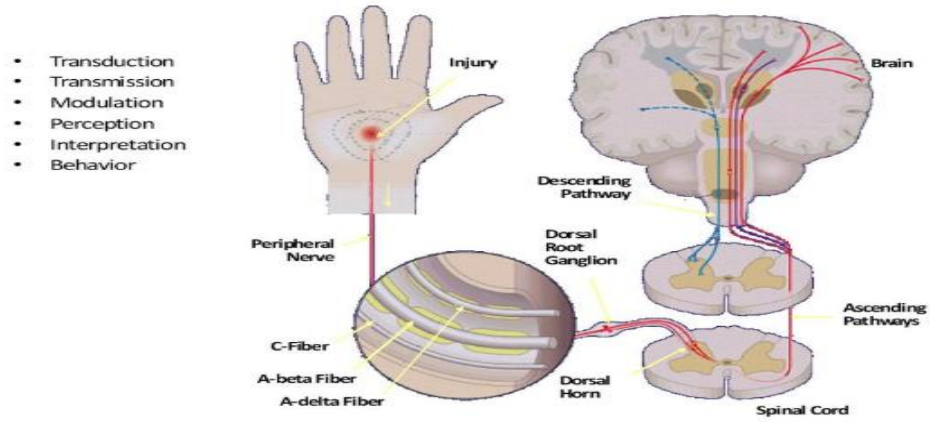

Figure 1. Pathophysiology of Pain

According to Hidayat (2022), several studies have shown that music therapy leads to improvements in sensory integration, relaxation, meditation, stress reduction, pain management, sleep, and overall health. Additionally, it can create a better learning environment, enhance memory, and boost creativity. Essentially, in every human activity, brain waves play a role in enabling humans to be in a specific state, such as maintaining concentration, focus, drowsiness, or relaxation. Brain wave states vary among humans and are categorized into four types: beta, alpha, theta, and delta (Sofiani, 2022). Music, as sound waves, is received and collected by the outer ear and enters the eardrum. The eardrum amplifies the sound energy by 25–30 times (on average 27 times) to move the fluid media, the perilymph and endolymph. The vibrations are then transmitted to the organ of Corti in the cochlea, where they are converted from the conductive system to the nervous system via the auditory nerve (N. VIII) as electrical impulses Electrical impulses from the music enter via nerve fibers from the spiral ganglion of Corti to the dorsal and ventral cochlear nuclei, which are located in the upper part of the medulla. At this point, all synapses of the fibers and second-order neurons are transmitted primarily to the opposite side of the brainstem and terminate in the superior olivary nucleus. After passing through the superior olivary nucleus, the conduction of auditory impulses continues upward through the lateral lemniscus and then proceeds to the inferior colliculus, where all or nearly all of these fibers terminate. From there, the impulses travel to the medial geniculate nucleus, where all the fibers synapse, and finally continue through the auditory radiation to the auditory cortex, which is primarily located in the temporal lobe (Rakhma, 2015). Relaxation can stimulate the reward center, thereby inducing a sense of calm. As a result of the resulting feelings of relaxation and calmness, the midbrain releases gamma-aminobutyric acid (GABA), enkephalins, and β-endorphins. These substances can produce an analgesic effect that eliminates pain-related neurotransmitters in the brain's centers for the perception and interpretation of somatic sensory input (Wahyuni, 2020). Based on the results of the analysis, traditional Lampung music has an effect on the emotions of its listeners. Pleasant emotional responses are elicited through the musical stimuli presented. Better emotional responses on the self-evaluation scale are viewed as pleasant emotions such as relief, joy, happiness, calmness, peace, comfort, gratitude, lightness, being moved, happiness, and enthusiasm (Rakhma, 2015). According to Andarnanti (2021), traditional music can reduce pain.

RESEARCH METHODS

Research Design

This study employs a quantitative approach, and the research method used is the pre-experimental method with a one-group pre-test and post-test design. The research design used is a one-group pre-test and post-test design, which involves conducting a single measurement before the treatment (pre-test) and then conducting another measurement afterward (post-test). The research design is as follows:

Figure 4.1 Research Design

O1.....X.....O2

Note:
O1: Measurement of pain intensity before the intervention
X: Administration of the intervention using traditional Lampung music therapy
O2: Measurement of pain intensity after the intervention

Research Period

This study will be conducted in the operating room at Airan Raya Hospital in Lampung from January 20 to February 20, 2024.

Research Subjects

Population

A population refers to the entire set of research subjects or objects under study that share specific, predefined characteristics (Notoatmodjo, 2018). The population in this study consists of all post-mastectomy patients in the inpatient ward of Airan Raya Hospital in Lampung, numbering an average of 34 patients per month.

Sample

A sample is a portion taken from the entire research population and is considered representative of the entire population (Notoatmodjo, 2018). The formula for determining the sample size in this study can use Federer's (1963) formula, as cited by Suyanto (2010), which is determined based on the total number of groups (t) used in the study. Since this study uses 1 group, the sample size is:

$$(t - 1)(n - 1) \geq 15$$
$$(1 - 1)(n - 1) \geq 15$$
$$n - 1 \geq 15$$
$$n \geq 15 + 1$$
$$n \geq 16$$

Description:
t: Number of groups in the study
n: Number of replicates 36 To avoid dropouts during the research process, it is necessary to increase the sample size to ensure that the required sample size is met (Rahayu, 2017), using the following formula:

$$n' = n / (1 - f)$$
$$n' = 16 / (1 - 0{,}1)$$
$$n' = 16 / 0{,}9$$
$$n' = 17{,}7$$
$$n' = 18$$

Note:
n': sample size after revision
n: original sample size
1-f: estimated dropout rate, assumed to be 10% (f = 0.1)
The inclusion and exclusion criteria are as follows:

1. Inclusion
   a) Patients who have undergone breast cancer surgery (to be administered 2 hours before taking medication)

b) Willing to participate as a study subject
c) Patients who are conscious with a GCS score of 15
d) Able to communicate verbally
e) Cooperative

2. Exclusion

a) Patients who dropped out

Sampling Techniques

The sampling technique used in this study was purposive sampling. Purposive sampling is a technique for selecting a sample based on specific criteria. The reason for using purposive sampling is that it is suitable for quantitative research or studies that do not aim to generalize their findings (Sugiyono, 2019).

Research Variables

A variable is a behavior or characteristic that distinguishes one thing from another (objects, people, etc.). The variable in this study is traditional Lampung music therapy.

a. Independent variable An independent variable is a variable that influences other variables or whose value affects other variables (Nursalam, 2018). The independent variable in this study is traditional Lampung music therapy

b. Dependent variable A dependent variable is a variable whose value is determined by another variable (Nursalam, 2018). The dependent variable in this study is the pain intensity of patients following breast cancer surgery

Operational Definitions

An operational definition of a variable is a specification or method of measuring the variable under study. The operational definition of a variable is organized in a matrix format, which includes: the variable name, operational definition, measurement instrument, measurement results, and the measurement scale used (nominal, ratio, interval, or scale). Operational definitions are created to facilitate and ensure consistency in data collection, prevent differences in interpretation, and define the scope of the variable.

Table 1. Operational Definitions

Research variables	Operational definitions	Parameters	Measuring instrument	Data scale	Score
Independent variable;; traditional Lampung music therapy	The use of distraction techniques involving traditional Lampung music titled "Nasib Anak Ragah" for patients undergoing breast cancer surgery	Providing traditional Lampung music therapy to patients who have undergone breast cancer surgery: 1. The type of music played is a traditional Lampung piece titled "Nasib Anak Ragah" 2. Music therapy sessions	SOP	-	-

		last 20 minutes 3. Conducted once a day Conducted 2 hours before taking medication			
Dependent variable: pain in patients who have undergone breast cancer surgery	Pain experienced by patients after breast cancer surgery due to surgical wounds	Administering a Numeric Rating Scale (NRS) to patients who have undergone breast cancer surgery	Using a numerical rating scale (NRS) on a scale of 1 to 10	interval	pain scale (0-10)

Research Ethics

Notoatmodjo (2018) states that ethics is the study of what is good and what is bad, and of a person's rights and obligations within a social group. Research is an effort to seek the truth regarding phenomena of human life; these phenomena may take the form of natural, social, cultural, educational, health, economic, political, and other phenomena, with the aim of advancing science and technology that ultimately leads to human health (Notoatmodjo, 2018).

The following are the ethical principles that must be upheld in research (Notoatmodjo, 2018). Respect for human dignity. Research must take into account the rights of research participants to receive the information they need in accordance with the objectives of the study. This can be achieved by preparing an informed consent form that includes:

1. Explanation of the benefits of the research.
2. Explanation of potential risks and discomforts that may arise.
3. The subject's agreement to answer and follow any questions and instructions provided by the researcher at any time.
4. Guarantee of anonymity and confidentiality regarding the respondent's identity and the information provided.

Respect for the privacy and confidentiality of research participants Everyone has fundamental individual rights, including the right to privacy and the freedom to choose whether to disclose information about their identity. Researchers should use initials instead of respondents' full names.

Justice and Openness (respect for justice and inclusiveness) Researchers must uphold the principles of openness and justice through honesty, transparency, and diligence, which involves clearly explaining the research procedures

Balancing the benefits and harms A research study should maximize benefits and minimize harms to the general public and to the research participants in particular. This study will provide benefits.

Data Collection and Instruments

Data Collection

Steps taken by the researcher in collecting research data:

a. Obtain research permission by presenting a letter from the partner university to the management of Airan Raya Hospital in Lampung.
b. Obtain research permission from Airan Raya Hospital in Lampung.
c. After obtaining permission from Airan Raya Hospital in Lampung, the permission letter is then presented to the head of the surgical ward at Airan Raya Hospital in Lampung to conduct the research.
d. The researcher collected data with the assistance of four research assistants. Before the research assistants administered the intervention, the researcher explained the procedure for administering the intervention to the assistants so they could administer it to the respondents. The research assistants recorded necessary details during data collection. The researcher and several research assistants identified respondents by waiting in the surgical inpatient ward to be studied.
e. Explain to the respondents the procedures to be performed, the objectives, and the benefits of the study; if the respondents agree, their families are asked to sign the informed consent form.
f. Measure the pain scores of patients who have undergone breast cancer surgery before therapy using the Numeric Rating Scale (NRS).
g. Administer traditional Lampung music therapy to the participants for 20 minutes.
h. Measure pain scores in post-mastectomy patients after therapy using the Numeric Rating Scale (NRS).
i. Collect the Numeric Rating Scales (NRS) completed by the respondents and verify that they are complete.
j. The researcher collects, processes, and analyzes the data.

Instruments

Research instruments are tools used for data collection (Notoatmodjo, 2012); the instrument used in this study is a questionnaire employing the Numeric Rating Scale (NRS). Pain scores or pain levels are measured on a scale of 0 to 10 using the Numeric Rating Scale (NRS). The instrument used in this study was a traditional Lampung song titled “Nasib Anak Ragah,” played on a smartphone, with headphones worn over the ears to listen to the classical music. Classical music therapy was administered for 20 minutes, 2 hours before medication was taken (Arisandi, 2022).

Data processing

Data processing in this study involved the following stages:

Editing

Editing is the process of verifying the accuracy of data that has been obtained or collected (Hidayat, 2018). In this study, the data obtained was re-examined to determine the completeness of the data provided. Each piece of collected data was checked to ensure it was complete; if it was incomplete, efforts were made to obtain the missing information.

Coding

The researcher organized the raw data into a readable format for data processing. The researcher assigned codes to the research findings. Coding is the process of assigning numerical codes to data consisting of several categories within the independent variable, namely pain levels. The researcher used the following response codes:

a) Pain score: 0–10
b) Age
   17–25 years (late adolescence) = 1
   26–35 years (early adulthood) = 2
   36–45 years (late adulthood) = 3
   46–55 years (Early elderly) = 4
   56–65 years (Late elderly) = 5

c) Surgical history
Never = 1
Ever = 2

Tabulating

This involves entering the research data into a table according to the criteria specified by the researcher.

Processing

The grouped data was then subjected to computerized statistical analysis. The data processing was carried out so that the data could be analyzed.

Cleaning

Verifying data that has been entered into the computer system to ensure there are no errors. The purpose of data processing at this stage is to ensure that the processed data contains no errors.

Data analysis

To test a hypothesis, the following data analyses can be performed:

Univariate Analysis

Univariate analysis aims to explain or describe the characteristics of each research variable; the results are presented in the form of distributions and percentages for each variable (Notoatmodjo, 2018), to analyze the effects of traditional Lampung music therapy on pain scores in patients who have undergone breast cancer surgery. All respondent characteristics in this study, such as age and surgical history, are presented as categories expressed as percentages and outlined in a frequency distribution table.

Bivariate Analysis

Bivariate analysis is an analysis conducted on two variables that are suspected to be related or correlated (Notoatmodjo, 2018); this bivariate analysis serves to determine the effect of traditional Lampung music therapy on pain intensity in patients who have undergone breast cancer surgery. The data scale used in this study is interval data.

Normality Test

To test the hypothesis, a normality test is conducted first. A normality test is a test conducted to assess the distribution of data within a dataset or variable, to determine whether the

Data follows a normal distribution or not. A normality test is useful for determining whether the collected data follows a normal distribution or is drawn from a normal population.

The Kolmogorov-Smirnov test is used to test for normality. In the Kolmogorov-Smirnov test, a p-value below 0.05 indicates that the data being tested differs significantly from a normal distribution, meaning the data is not normally distributed. According to Sugiyono (2015), the paired-sample t-test

The tested data show significant differences from the standard normal distribution, meaning that the data are not normally distributed. According to Sugiyono (2015), the paired-sample t-test. The t-test is a statistical method used to assess the effectiveness of a treatment, as indicated by a difference in means following the application of the treatment. This test is conducted when the data are normally distributed (Sugiyono, 2019).

RESULTS AND DISCUSSION

Average Pain Scale Score Before Administration of Traditional Lampung Music Therapy in the Operating Room at Airan Raya Hospital, Lampung

Table 2. Average Pain Scale Before Administration of Traditional Lampung Music Therapy in the Operating Room at Airan Raya Hospital, Lampung (n=18)

Variable	n	Mean	SD	Min-Max
Pre-test pain scale	18	5,50	0,985	4-7

Table 2. above shows that the average pain score before receiving traditional Lampung music therapy was 5.50, with a standard deviation of 0.985, a minimum score of 4, and a maximum score of 7.

Average Pain Scale After Administration of Traditional Lampung Music Therapy in the Operating Room at Airan Raya Hospital, Lampung)

Table 3. Average Pain Scale Scores After Administration of Traditional Lampung Music Therapy in the Operating Room at Airan Raya Hospital, Lampung (n=18)

Variabel	n	Mean	SD	Min-Max
Pre-test pain scale	18	3,33	0,970	2-5

Table 3. above shows that the average pain score following traditional Lampung music therapy was 3.33, with a standard deviation of 0.970, a minimum score of 2, and a maximum score of 5.

Variabel	Mean	n	*Mean different*	*Std Error*	*P –Value*
Pre-test pain scale	5,50	18	2,167	0,326	0,00
Post-test pain scale	3,30	18			

Bivariate Analysis

Table 4. The Effect of Traditional Lampung Music Therapy on Pain Intensity in Postoperative Breast Cancer Patients in the Surgical Ward of Airan Raya Hospital, Lampung.

Based on Table 4.4 above, it can be seen that the results of the paired-sample t-test on the pain scale measurements of the respondents yielded a p-value of 0.000 (p-value < α (0.05)). Therefore, it can be concluded that traditional Lampung music therapy has an effect on pain intensity in patients who have undergone breast cancer surgery in the surgical ward of Airan Raya Hospital in Lampung

Discussion

Respondent Characteristics

The results of the study show the characteristics of the respondents based on

Age

Based on the results of a study conducted on patients who had undergone mastectomy at the surgical ward of Airan Raya Hospital in Lampung, the majority of respondents were aged 46–55 years (61.1%). The 46–55 age range is a period typically associated with significant hormonal changes in women, such as menopause. These hormonal changes can influence the risk of developing breast cancer, and patients in this age group may be more susceptible to health issues related to these hormonal changes (Wiliyanarti, 2021). According to Novitarum (2023), the age range of 46–55 years is a period during which the risk of developing breast cancer tends to increase significantly. Therefore, more patients in this age group may have experienced or are currently undergoing treatment for breast cancer, including mastectomy.

This aligns with Amperaningsih's (2023) study, which found that the average age of patients ranged from 44.86 to 47.88 years. Based on research conducted by Dewi (2023), it was found that there is a significant association between age and the occurrence of breast cancer. Women aged 41 to 80 years are 6,785 times more likely to develop breast cancer than those under 41 years of age

The results of this study suggest that the 46–55 age group may represent a significant segment of the breast cancer patient population. Patients in this age group may require a care approach that focuses more on specific health issues relevant to their stage of life, such as early detection of breast cancer

Surgical history

The results of the study show that the majority of respondents (66.7%) had no history of surgery. Based on a study conducted on post-mastectomy patients in the surgical ward of Airan Raya

Hospital in Lampung, it was found that the majority of respondents had no history of surgery. There are two categories of pain experience: tolerable and intolerable. According to the study findings, 20 people, or 58.8%, experienced pain that was intolerable. It was determined that prior pain management had two categories for pain experience: tolerable and intolerable.

According to the study's findings, experiencing pain means experiencing pain. Twenty people, or 58.8%, could not tolerate it. It can be concluded that these individuals are still able to cope with ongoing pain management issues from the past.

This contradicts the literature, which suggests that an individual's experience is based on their previous ability to cope with pain. If a person has previously managed to cope with pain, they will find it easier to cope when the pain returns (Brunner, Suddarth, Bare, Boyer, & Smeltzer, 2015). the sensation of something painful.

Average Pain Scale Before the Administration of Traditional Lampung Music in the Operating Room at Airan Raya Hospital in Lampung

Based on the research findings, the average pain score before receiving traditional Lampung music therapy was 5.50, with a standard deviation of 0.985, a minimum score of 4, and a maximum score of 7. Responses to pain can vary from person to person. Some respondents may be more sensitive to pain than others, so they tend to experience higher levels of pain even under the same conditions. Therefore, most respondents prior to the intervention may have had a higher level of sensitivity to pain, as reflected in the significant moderate pain levels.

The most common nursing issue following a mastectomy is acute pain caused by the surgical procedure. Damage to and inflammation of nerves trigger pain. A patient's experience of pain is influenced by various factors, including the patient's psychological state (Yodang & Nuridah, 2021). As many as 80% of postoperative patients experience pain (Yin et al., 2020). Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage.

In breast cancer surgery, tissue damage occurs (Wahyudi & Wahid, 2016). The pain experienced by patients after breast cancer surgery is influenced by several factors that can either exacerbate or alleviate the pain. The intensity of pain varies among individuals, ranging from mild to moderate to severe (Fitriana, 2020). The results of this study are consistent with research conducted by Syafitri (2018), which showed that the prevalence of post-major surgery patients experiencing moderate to severe pain was 41% of post-operative patients on day 0, 30% on day 1, and 19% on day 2.

This is consistent with the study by Nugraha (2023), whose results showed an average pain scale score of 7.31 before the intervention, with a standard deviation of 1.85. The minimum pain score before the intervention was 5, and the maximum was 10. In the study conducted by Sepriliani (2018), the results indicated that the majority of patients (64%) experienced moderate pain. Another study on pain conducted by Fatmawati (2023) showed that the pain levels in postoperative patients were mostly mild in 18 patients (54%) and moderate in 12 patients (46%) (Fatmawati, 2023).

Based on the results of the above study, the researchers conclude that, prior to the procedure, postoperative pain reactions were quite high. Music therapy is highly beneficial. Both factors were present and fell within the same range. The respondents in this study reported feeling the effects of the surgical procedure or tissue damage, which caused severe pain reactions.

Average Pain Scale Following Traditional Lampung Music Therapy in the Operating Room at Airan Raya Hospital in Lampung

Based on the research findings, the average pain score following traditional Lampung music therapy was 3.33, with a standard deviation of 0.970, a minimum score of 2, and a maximum score of 5.

This is consistent with the theory proposed by Tubagus (2019), who states that music therapy is more effective in managing postoperative pain. The results of his study showed a decrease in pain scores after traditional music was administered to postoperative patients. This is consistent with the research by Sepriliani (2019), which found that postoperative pain, following traditional music therapy, was in the mild category for 36 patients (72.0%).

The music therapy used in this study involved traditional Lampung music, which can divert attention from pain sensations by providing respondents with pleasant stimuli. This can reduce sensitivity to pain and help reduce overall pain perception.

Based on the research findings, traditional Lampung music therapy has a significant impact on reducing pain levels among respondents. It can be seen that after receiving the traditional Lampung music therapy intervention, no respondents experienced severe pain. This indicates that the intervention can be effective in reducing pain levels, although it does not directly result in the complete elimination of pain. It appears that traditional Lampung music therapy is able to uniformly reduce pain levels, with 50% of respondents reporting moderate pain and the other 50% reporting mild pain. This demonstrates consistency in the effects of traditional Lampung music therapy across various levels of pain severity.

This analysis also highlights the importance of non-pharmacological approaches to pain management, such as traditional music therapy, which can serve as an alternative or complement to conventional treatment. The use of traditional Lampung music therapy as a pain intervention also carries cultural and local significance that may enhance positive responses from participants, as it can reinforce cultural identity and provide a greater sense of comfort.

The Effect of Traditional Lampung Music Therapy on Pain Intensity in Patients After Breast Cancer Surgery

The results of the study indicate that traditional Lampung music therapy has an effect on pain intensity in patients who have undergone breast cancer surgery, with a p-value of 0.000. Music therapy has been shown to be effective in diverting attention from pain sensations by providing pleasant auditory stimuli. This can lead to a reduction in pain perception through a distraction mechanism, whereby focusing attention on music reduces awareness of the pain being felt. Calming music is known to stimulate the parasympathetic nervous system and reduce the activity of the sympathetic nervous system. Activation of the parasympathetic nervous system can produce a relaxing effect and reduce the body's response to pain, such as a decrease in heart rate and blood pressure.

This is consistent with Wulan's (2020) study, which found that gamelan music therapy resulted in a decrease in pain scores following the intervention. This is also consistent with Tubagus's (2019) study, which found a reduction in pain scores after exposing postoperative patients to traditional music. Dr. John Diamond and Dr. David Nobel have conducted research on the effects of music on the human body, concluding that when we listen to music that is appropriate and acceptable to the human body, the body reacts by releasing a type of hormone (serotonin) that can induce feelings of pleasure and happiness (Sepriliani, 2018).

Music therapy is a type of non-invasive therapy that can be incorporated into nursing care. Nurses play various roles in pain management. They are involved in conducting assessments, providing interventions, evaluating outcomes, and planning and implementing educational programs to address the pain experienced by patients. Nurses can provide non-pharmacological interventions to improve patients' quality of life and enhance their comfort.

This traditional Lampung music therapy aims to help express feelings, aid in physical rehabilitation, have a positive impact on mood and emotions, improve memory, and provide a unique opportunity to interact and build emotional bonds.

Limitations of the Study

This study on the effect of traditional Lampung music therapy on pain intensity in patients who have undergone breast cancer surgery in the Surgical Ward of Airan Raya Hospital in Lampung has several limitations, including:

1) The researchers used research assistants to collect data, which may affect the validity of the data. 2) In this study, the researcher also used research assistants for data collection, which may affect the validity of the data. 3) In this study, the researcher was limited by time, so the long-term effects of administering traditional Lampung music therapy could not be evaluated.

CONCLUSION

Based on the results of a study conducted by researchers in the Operating Room at Airan Raya Hospital in Lampung from January to February 2024, it can be concluded that: 1) In terms of age, the majority of respondents were between 46 and 55 years old (61.1%), and most had never undergone surgery (66.7%).2) The average pain scale score of the respondents before the intervention was 5.50, with a minimum score of 4 and a maximum score of 7, indicating that most experienced moderate pain. 3) The average pain score among respondents after receiving the intervention—most of whom experienced mild pain—was 3.33, with a minimum score of 2 and a maximum score of 5. 4) Traditional Lampung music therapy had a significant effect on pain intensity in patients who had undergone breast cancer surgery (P-value = 0.000).

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