STRADA Jurnal Ilmiah Kesehatan
DOI: 10.30994/sjik.v10i1.712
ISSN: 2252-3847 (print); 2614-350X (online) Vol.10 No.1 May 2021 Page. 765-771

The Effect Of Keroncong Music Therapy On The Reduction Of Pain Intensity In Post-Trauma Patients

Oktaffrastya Widhamurti Septafani*, Sonu Eky Reza Rahman, Henny Purwandari
STIKes Satria Bhakti Nganjuk, Indonesia
** Correspondent Author: oktaffrastyaws@gmail.com*

ABSTRACT
One therapy that can reduce pain intensity is keroncong music therapy. The purpose of this study was to determine the effect of keroncong music therapy on reducing pain intensity in post trauma patients at RSUD Nganjuk. This study used a pre-experimental research design with the One Group Pre-Post Test Design approach.The population that met the inclusion criteria. The number of samples is 22 respondents with purposive sampling technique. The results of the study from 22 respondents, before being given therapy almost all respondents were 18 respondents with severe pain intensity (82%), while the intensity of pain after being given music therapy most respondents were 15 respondents with moderate pain intensity (68%). The Wilcoxon test results obtained pvalue = 0,000 α = (0,05), so H1 was accepted. This shows that there is an influence of keroncong music therapy on the reduction in pain intensity in post trauma patients in RSUD Nganjuk.

Keywords: Keroncong Music Therapy, Pain Intensity, Post Truma Patient

Received March 17, 2021; Revised April 7, 2021; Accepted April 22, 2021

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BACKGROUND

Surgery is one type of management in fracture patients to reposition broken bone fragments. Surgery is a post-traumatic procedure that can cause pain, so that it can cause serious complications and hinder the respondent's recovery process, if pain management is not carried out properly. In the process of reducing pain, it can be done by giving analgesics but giving analgesics can cause an increase in stomach acid in respondents (Kneale & Christopher, 2011). Meanwhile, according to Setyawan D (2014) In the journal: Relaxation Music Therapy and Nature Sound, there are therapies other than analgesics that can reduce pain intensity, namely keroncong music therapy because keroncong music can provide a feeling of calm and relaxation because the music is lilting and can affect the parasympathetic nervous system, which causes stimulation of alpha waves. Alpha waves can indicate that the patient is in a comfortable condition.

The World Health Organization (WHO) noted that in 2011 there were more than 5.6 million people who died due to accidents and around 1.3 million people had physical disabilities. Accidents have a fairly high prevalence, namely the incidence of lower limb fractures around 40% (Ministry of Health of the Republic of Indonesia, 2011). 80% of patients undergoing surgery experience acute pain after surgery. The pain experienced by the patients was 86% in the moderate and severe pain categories. (Kneale & Christopher, 2011). Fractures in Indonesia are the third largest cause of death under coronary heart disease and tuberculosis. According to the 2011 Basic Health Research data, fractures occurred in Indonesia caused by injuries such as falls, traffic accidents and sharp / blunt trauma. Basic Health Research 2011 found that there were as many as 45,987 falls that experienced fractures as many as 1,775 people (3.8%). There were 20,829 cases of traffic accidents, and 1,770 people who had fractures (8.5%), of the 14,127 sharp / blunt trauma, 236 had fractures (1.7%) (Nurcahiriah, 2014). Data from the medical records of Nganjuk Hospital in the Bougenvile Room found that the prevalence of fractures in 2017 was 324 patients, while the 2018 report recorded the number of fractures from January to June as many as 61 patients.

Pain after surgery is caused by mechanical stimulation of the wound which causes the body to produce pain chemical mediators. Chemical mediators can directly or indirectly activate more sensitive nociceptors, causing hyperalgesia. Pain after fracture surgery will have an impact on the endocrine system which will increase the secretion of cortisol, catecholamines and other stress hormones. The physiological responses that influence pain are tachycardia, increased blood pressure, changes in immune response, hyperglycemia. Pain also causes patients to be afraid to move so they are at risk of deep vein thrombosis, pulmonary atelectasis, reduced intestinal motility and urinary retention (Constantini & Affaitati, 2011). The risk of postoperative fracture problems can be minimized if the patient can adapt to the pain he is experiencing.

Pain is a common complaint submitted by postoperative patients, especially on the first to third postoperative days. The results of a US Department of Health study found that more than 80% of patients in surgical procedures reported experiencing moderate to severe postoperative pain (Tse, Chan, & Benzie, 2005). The characteristics of postoperative acute pain generally increase at 24 hours after surgery and decrease on the third day (Vashisht, 2015). The most common therapy given to post-operative patients is pharmacological therapy in the form of analgesics, either opioids, multimodal analgesics or single. Provision of these analgesics for postoperative patients can cause side effects such as nausea and constipation (Buvanendran & Kroin, 2009). In addition, giving pharmacological therapy generally only provides a therapeutic effect for 2 hours. Meanwhile, giving music therapy

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when the patient listens to the music can directly affect the work of the sympathetic and parasympathetic nerves so that the patient is in a comfortable position. Therefore, additional therapy is needed in the form of non-pharmacological therapy, one of which is complementary therapy in the form of music therapy. Music therapy is a simple, easy therapy, and does not cause side effects. There has been a lot of research on the benefits of music therapy. The results showed that music therapy was proven to be able to reduce pain, anxiety, blood pressure, heart rate, respiratory rate, and increase oxygen saturation (Ebneshahidi & Mohseni, 2008).

Keroncong music therapy can be an option as a non-pharmacological therapy in the form of complementary therapy to reduce postoperative pain in the patient's ward. Keroncong music can give a feeling of calm and relaxation because the music is lilting can affect the work and the sympathetic and parasympathetic nervous system. When keroncong music is given to patients after surgery, the keroncong music affects the parasympathetic nervous system which causes alpha waves to be stimulated. Alpha waves indicate that the patient is in a comfortable condition. This comfortable condition automatically stimulates the release of endorphins and serotonin. Both of these substances physiologically reduce patient pain and anxiety (Setyawan, 2014).

Indonesia recognizes keroncong music as an amalgamation of various kinds of music from western and non-western elements by combining various musical instruments. Keroncong music is traditional classical music from Indonesia. Keroncong music has a soft diatonic scale, a sign of the slow and mellow tempo of Andante (Totok, 2010).

Based on the background of the problem above, the researcher is interested in conducting research on "Is there an effect of Keroncong Music Therapy on the Decrease in Post-traumatic Pain Intensity at the Umun Hospital, Nganjuk District.

METHODS

The design of this research is pre-experimental with the One Group Pre-Post Test approach, which is to test the success of a treatment by comparing the conditions before (pre) and after (post) being treated. In this study, the level of pain before and after being given keroncong music therapy will be compared. This study aims to determine the extent of the relationship between the independent variable and the dependent variable. In this study, the independent variable was keroncong music therapy and the dependent variable was the intensity of pain using a questionnaire. The research was conducted at the Nganjuk District Hospital. The population in this study were all average fracture patients in the Bougenvil room of the Nganjuk District Hospital, totaling 22 patients in a month of fracture surgery patients. The number of samples was 22 fracture patients in the Bougenvil room of the Nganjuk District Hospital who met the criteria. The inclusion criteria in this study were adult patients aged at least 21 years, conscious patients and 24 hours post op. Meanwhile, the exclusion criteria for post-op patients who were under 20 years of age and consciousness decreased. Data analysis used the Wilcoxon test with $\alpha = (0.05)$.

RESULTS

Table 1 Distribution of Post-traumatic Pain Intensity Before being Given Keroncong Music Therapy at Umun Hospital, Nganjuk District

No	Pain Intensity	F	%
1	No pain	0	0
2	Mild Pain	0	0

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3	Moderate Pain	4	18,2
4	Severe Pain	18	81,8
	Total	22	100

Based on table 1, it can be seen from 22 respondents that almost all respondents, namely 18 respondents (82%) with severe pain intensity.

Table 2 Distribution of Post-traumatic Pain Intensity Before being Given Keroncong Music Therapy at Umun Hospital, Nganjuk District

No	**Pain Intensity**	F	%
1	No pain	0	0
2	Mild Pain	3	13,6
3	Moderate Pain	15	68,2
4	Severe Pain	4	18,2
	Total	22	100

Based on table 2, it can be seen from 22 respondents that most of the respondents, namely 15 respondents (68%) with moderate pain intensity.

Table 3 Tabulation of the Effect of Keroncong Music Therapy on Decreasing Pain Intensity in Post-Traumatic Patients at Umun Hospital, Nganjuk District

Pain Intensity	Pre		Post	
	F	%	F	%
No pain	0	0	0	0
Mild Pain	0	0	3	13,6
Moderate Pain	4	18,2	15	68,2
Severe Pain	18	81,8	4	18,2
No pain	22	100	22	100

Wilcoxon p-value = 0,000 ≤ α = 0,05

Based on Table 3, it can be seen that the pain intensity before being given music therapy was almost all respondents, namely 18 respondents with severe pain intensity (82%). Furthermore, the pain intensity after being given music therapy was mostly respondents, namely 15 respondents with moderate pain intensity (68%).

The results of the Wilcoxon statistical test obtained p-value = 0.000 (p-value ≤ α) so that H1 is accepted, which can be concluded that there is an effect of Keroncong Music Therapy on the Decrease in Post-traumatic Pain Intensity at the Umun Hospital, Nganjuk District.

DISCUSSION

1. Post-traumatic pain intensity before being given Keroncong music therapy at the Nganjuk Regional General Hospital.

   The results of this study indicate that of the 22 respondents, almost all respondents with severe pain intensity were 18 respondents (82%) aged 31-40 years, namely while the pain intensity was moderate, namely 4 respondents (18%) aged> 40 years. the pain

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of the fracture will decrease further. Pain perception in the elderly may be reduced as a result of pathological changes associated with several diseases. In the results of statistical tests of age demographics with post-traumatic patients before being given therapy, there is an association, as evidenced by p-value = 0, 035 ≤ α = (0.05).

According to Potter & Perry (2006) age is an important variable affecting pain, especially in adults and the elderly. The developmental differences found between the two age groups can affect how adults and the elderly react to pain. Adults with a vocabulary that is easier to understand than the elderly, so it is easier for nurses to describe the pain they feel verbally.

Pain intensity is a description of how severe pain is found by an individual. The measurement of pain intensity is highly subjective and individual. Pain in the same intensity is felt very differently by two people who are the same felt very differently by two different people (Andarmoyo, 2013). Postoperative pain may very well be caused by surgical wounds but other possible causes must be considered. It is better if pain prevention is planned before surgery so that sufferers are not bothered by pain after surgery. Analagesics should be given before pain occurs with adequate doses. The type of drug and how it is given depends on the cause and location of the pain, and the condition of the sufferer.

Based on the results of research on pain intensity before being given music therapy in postoperative patients at Nganjuk Hospital, it can be concluded that most patients who experience severe pain are 31-40 years old compared to those aged> 40 years, because the higher the age the pain intensity decreases.

2. Post-trauma pain intensity after being given Keroncong music therapy at the Nganjuk Regional General Hospital

The results of this study showed that of the 22 respondents half of the respondents (50%) had moderate pain intensity. After being given keroncong music therapy, they felt less pain and their bodies became more relaxed. At this age is a period of maximum muscle development that will help the ability to move not only in the fracture area, so that pain in adulthood will be faster to optimal (DeLaune & Ladner, 2002). the relationship, as evidenced by p-value = 0, 039.

By giving music therapy when the patient listens to the music, it can directly affect the work of the sympathetic and parasympathetic nerves so that the patient is in a comfortable position. Music therapy is simple, straightforward, and does not cause side effects. (Ebneshahidi & Mohseni, 2008).

The research journal associated with this study is a research journal conducted by Rivaldy (2015) which states that giving anagesic and music therapy is proven to affect pain more than just giving analgesics to fracture patients. So that music therapy can be used as a complementary therapy in fracture patients.

The results of this study indicate that almost all respondents with severe pain intensity after being given music therapy experienced a moderate decrease in pain intensity. This is supported by the respondent's willingness to do music therapy and to follow the orders of the researchers in accordance with the SOP.

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3. Effect of Keroncong Music Therapy on Decreasing Post-Traumatic Pain Intensity at Nganjuk Regional General Hospital.

The Wilcoxon test results show that pvalue = 0, 000 ≤ α = 0.05 so that Ha is accepted, meaning that there is an effect of keroncong music therapy on reducing the intensity of post-traumatic pain at the Nganjuk Regional General Hospital.

The mechanism of the decrease or increase in pain that occurs in postoperative patients can be explained by the theory of "gate control". The existence of postoperative tissue trauma will stimulate nocioceptive and inflammatory reactions. The process awakens the pain pathway, at the peripheral level there is a reduction in the threshold of nocioceptive afferents and at the central level there is an increase in excitability of the spinal neurons involved in pain transmission. The mechanism for managing this pain is by blocking pain messages that are conveyed to the brain via efferent pathways in the spinal cord (Rao, 2006).

Keroncong music can give a feeling of calm and relaxation because the music is lilting and can affect the work of the sympathetic and parasympathetic nervous systems. When keroncong music is given to patients after surgery, the keroncong music affects the parasympathetic nervous system which causes alpha waves to be stimulated. Alpha waves indicate that the patient is in a comfortable condition. (Setyawan, 2014).

The results of this study indicate that the provision of keroncong music therapy has succeeded in reducing pain intensity in post-traumatic patients at Nganjuk Hospital. Through this therapy, patients gain new knowledge about how to relax using music to reduce the pain they feel. Therefore, the patient's family is expected to be able to accompany the patient to do therapy after returning from the hospital.

CONCLUSION

From the results of this study, almost all respondents, namely 18 respondents (81.8%) with severe pain intensity before being given keroncong music therapy to post-traumatic patients at the Nganjuk Regional Hospital. Most of the respondents were 15 respondents (68.2%) with moderate pain intensity after being given keroncong music therapy to post-traumatic patients at the Nganjuk Regional Hospital. There is an effect of keroncong music therapy on reducing the intensity of post-traumatic pain at the Nganjuk Regional General Hospital with a low correlation level. With p-value = 0.000 ≤ α = 0.05.

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