

The Effect of Classical Music Therapy on Pain Intensity Pain in Post Appendicectomy Patients in Room Rose II General Hospital Bina Kasih Medan

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Abstract. Music therapy is the use of music for relaxation to accelerate the healing, improve mental function and create a sense of prosperity, music has a biological effect on human behavior by involving specific brain functions such as memory, learning, motivation, and emotion. Pain is an important sensation for the body. The sensation of vision, hearing, smell, taste, touch and pain is the result of sensory receptor stimuli. Pain management as part of the nurse's care of the patient's response will differ between patients, Appendectomy is the appendix uplifted by an endoscopic procedure or approach, Appendicitis is a bacterial infection. The trigger factor is the lumen blockage caused by fecalite, lymphoid hypertrophy, dry barium, seed or intestinal worms. This research is quasi experiment, which is done to know the influence of classical music therapy to the intensity of pain in post appendectomy patients with 32 respondents, the method of data collection by way of way and direct observation of respondents, The analysis technique used is t-test with 95% confidence level. The results of this study indicate that to determine the effect of classical music therapy on the intensity of pain in patients post apendiktomi very real and close. Before performing music therapy the mean value of 2.59 after music therapy the mean value of 1.44 suggest to health workers especially to nurses At Bina Kasih General Hospital Medan to provide (Penkes) Health education to patients who experience pain post Apendiktomi.

1. INTRODUCTION

Appendicitis is one of the most prevalent cases of abdominal surgery globally, with an estimated incidence of 100 cases per 100,000 individuals per year (Brenner, 2018). Appendectomy is one of the most common abdominal surgeries worldwide, with a reported prevalence of approximately 25 cases per 100,000 individuals per year (Lee et al., 2010; Shrestha et al., 2012). In 2012, the Indonesian Ministry of Health reported that appendicitis was the fourth most common disease in Indonesia, following dyspepsia, gastritis, duodenitis, and other gastrointestinal system diseases. A total of 28,040 hospitalized patients were diagnosed with appendicitis that year. The incidence of appendicitis in North Sumatra province is notably high. In general, the incidence of appendicitis is higher in industrialized countries than in developing countries.

This discrepancy can be attributed to a deficiency in dietary fibre intake and the prevalence of high sugar and fat intake amongst the populations of these countries. Conversely, in developing countries, where dietary fiber intake is relatively high, the incidence of appendicitis is not as prevalent as in industrialized countries (Depkes RI, 2012; Longo et al., 2012). From the initial observations made by the author in March and April 2014 in the surgical inpatient room of RSUD Dr. Achmad Darwis Suliki, it was noted that 10 patients experienced varying degrees of pain. Nine patients reported severe pain, while one patient reported moderate pain. The results of the analysis and discussion indicate that the average effectiveness of the pain scale in the guided imagination therapy group with the music therapy group after treatment is 1.085, with a p value of 0.000 (<0.005) and a T value greater than the T table value ($7.836 > 1.734$) (Endra Amalia, Yozi Susanti).

Music therapy represents one of the independent actions of nurses in pain management. Various researchers have demonstrated that classical music is an effective type of music for pain management. The purpose of this study is to investigate the efficacy of music therapy in reducing postoperative pain at H. Abdul Madjid. The Batoe Muara Bulian Hospital. Prior to the administration of classical music therapy, the average pain scale in postoperative patients was 4.64. Following the administration of classical music therapy, the average pain scale was 2.92. These findings indicate that music therapy has a significant effect on reducing the pain scale in postoperative patients.

Both music and pain are sensory phenomena, classified as input and output, respectively. Input refers to the transmission of a signal from the external environment to the brain, while output is the generation of a response within the brain. In the context of postoperative pain management, music therapy has been shown to have a significant impact on reducing the pain scale in patients. This study was conducted at the Tk. III Mongisidi Hospital in Manado, Indonesia. The surgical treatment room was selected as the setting for the study due to its high prevalence of postoperative pain. The study involved a total of 100 patients, with 50 undergoing surgical procedures and 50 serving as controls. The patients were monitored for pain levels before and after the surgical procedure.

The results demonstrated a significant reduction in pain levels among the patients who received music therapy compared to those who did not. This study highlights the potential of music therapy as a non-pharmacological approach to managing postoperative pain. A study conducted at III Mongisidi Hospital Manado found that music has an effect on the pain scale in patients undergoing surgical wound treatment in the postoperative period. Children and the elderly are more susceptible to experiencing perforation. A study conducted at one of the Bina Kasih Medan General Hospitals in North Sumatra revealed that out of 173 pediatric patients who experienced appendicitis, 91 patients experienced perforated appendicitis. The study indicated that misdiagnosis in children with appendicitis increased the percentage of perforations to 73.1% (Wolfe, 2014; Chang et al., 2012).

The initial survey conducted by the researcher yielded data on 4,567 individuals who visited the Bina Kasih Medan General Hospital between 2009 and 2017. In the final year of the study (2016), 620 patients with appendicitis sought treatment at the hospital, with the majority being children and adults. From January to September 2017, 461 patients presented with appendicitis at Bina Kasih Medan General Hospital.

Surgical cases represent the sixth most common procedure performed at Bina Kasih Medan General Hospital. Postoperative patients frequently experience pain. Once the operation is complete and the patient becomes aware of it, they will feel pain. One effective method to reduce postoperative pain non-pharmacologically is distraction. The objective of this study is to determine the effect of classical music therapy on the pain scale in postoperative clients. The research design employed is a pre-experimental study. The study population consisted of surgical patients in the surgical room of Bina Kasih Medan General Hospital, with an average of 51 patients per month. A total of 32 patients were selected using purposive sampling, resulting in a sample size of 32. This research was conducted at Bina Kasih General Hospital, Medan.

The results of interviews and observations of 25 individuals with appendicitis following surgery indicated that the most common method of managing pain was through the administration of drugs provided by the hospital. From these interviews and observations, it was evident that none of the appendicectomy patients utilized classical music therapy as a means of alleviating pain. Based on this observation, researchers are interested in examining the potential impact of classical music on pain intensity in post-appendicectomy patients at Bina Kasih General Hospital Medan.

2. METHODS

This type of research is a quasi-experimental study (pseudo-experiment) which aims to determine the effect of classical music therapy on reducing pain intensity in post-appendicectomy patients in the Rose Room II of Bina Kasih General Hospital in Medan. This research plan will be carried out in the Rose Room II of Bina Kasih General Hospital in Medan. The research will be conducted between April 19 and May 25, 2021. The population of interest in this study consisted of patients with appendicitis who sought treatment at Bina Kasih Medan General Hospital between January and September 2017, with a total of 461 individuals. The sample was selected to represent the larger population and was considered a representative sample. In accordance with the data on patients with appendicitis at Bina Kasih General Hospital Medan, the number of samples taken in this study was 32.

The technique employed at Bina Kasih General Hospital Medan for the collection of data on appendicitis patients was the random sampling method. This involved the selection of respondents at random to form the sample. The criteria for inclusion in the study were that the respondents were male or female.

The data collection method is carried out by means of interviews and direct observation of respondents using predetermined tools, as contained in the research instrument. Prior to data collection, the researcher will undertake several preparatory steps, namely:

1. Submit a letter of request to the TU Stikessu for research approval.
2. After obtaining a research approval letter, the researcher submits a research letter to the k.a. Bina Kasih General Hospital Medan.
3. The researcher will then socialize with the head of Bina Kasih Medan General Hospital and other employees, and request permission to conduct research at Bina Kasih Medan General Hospital.
4. The researcher will then determine prospective respondents through interviews or observation.
5. The researcher will then explain the research to prospective respondents about the purpose, benefits, and process of filling out the questionnaire.
6. The researcher will then ask potential respondents to sign an informed consent.
7. The provision of classical music therapy as a form of therapy to respondents is contingent upon the assessment of their characteristics and the manipulation of their environment through the use of a cover. This is followed by the respondents (families) being asked to complete a questionnaire.
8. Classical music therapy is carried out three times a day for two days, with each session lasting five minutes. Research instruments may take the form of observation sheets, which list the activities to be observed, electronic aids such as cell phones, and books and pens.

3. RESULTS AND DISCUSSION

This study examined the characteristics of respondents in terms of pain intensity among post-appendectomy patients. The respondents were categorized according to their age, gender, educational attainment, and occupation. These variables were considered in relation to the respondents' experiences at a general hospital in Bina Kasih Medan.

Respondent Characteristics

Table 1. Frequency Distribution of Respondents Based on Age, Gender, Respondent Education, and Occupation at Bina Kasih General Hospital Medan

No	Age	Frequency	Percentage (%)
1.	20-30 Years	2	6,3
2.	31-40 Years	26	81,2
3.	41-50 Years	4	12,5
	Total	32	100
No	Gender	Frequency	Percentage (%)
1.	Man	20	62,5
2.	Woman	12	37,5
	Total	32	100
No	Education	Frequency	Percentage (%)
1.	Elementary	15	46,9
2.	Junior High School	9	28,1
3.	High School	3	9,4
4.	Bachelor	5	15,6
	Total	32	100
No	Occupation	Frequency	Percentage (%)
1.	Farmer	18	56,3
2	Entrepreneur	9	28,1
3	Civil Servant	5	15,6
	Total	32	100

From Table 1. The results indicate that the majority of respondents (n=26; 81.3%) experienced post-appendectomy pain at the age of 31-40 years. Additionally, the majority of respondents (n=20; 62.5%) who experienced post-appendectomy pain were male. The highest proportion of respondents reporting pain following an appendectomy was among those with an elementary education (46.9%).

Similarly, the majority of respondents in this group were farmers (56.3%). The characteristics of the respondents in this study include the intensity of pain experienced by patients prior to undergoing Classical Music Therapy.

Pain Scale Before doing Classical Music Therapy on respondents

Table 2. A frequency distribution and percentage of pain intensity in post-appendicectomy patients before the implementation of classical music therapy were recorded.

No	Before	Frequency	Percentage (%)
1.	Low	0	0
2.	Medium	13	40,6
3.	High	19	59,4
4.	Total	32	100

Table 4.2 presents the results of the research, which indicate that the intensity of pain in post-appendicectomy patients before classical music therapy was performed fell into the mild category for 0% of patients, the moderate category for 40.6% of patients, and the severe category for 59.4% of patients.

Pain Scale After doing Classical Music Therapy on respondents

Characteristics of respondents in this study of pain intensity in patients after performing Classical Music Therapy on respondents

Table 3. Frequency Distribution and Percentage of Pain Intensity in Post Appendicectomy Patients After Classical Music Therapy

No	After	Frequency	Percentage (%)
1.	Low	18	56,3
2.	Medium	14	43,7
3.	High	0	0
4.	Total	32	100

From table .3. The results of the research received can be seen that the intensity of pain in post appendicectomy patients after classical music therapy in the mild category was 18 people (56.3%), while the intensity of pain in post appendicectomy patients after classical music therapy in the moderate category was 14 people (43.7%). And the Heavy category there are as many as 0 people

Knowing Pain Intensity Before Intervention in Post Appendicectomy Patients

The study aimed to determine the effectiveness of music therapy in alleviating post-appendicectomy pain. The results of the study, which included 32 respondents, indicated that 13 individuals (40.6%) experienced moderate pain intensity, while 19 (59.4%) exhibited severe pain. The mean value obtained before the intervention was 2.59. From the results of interviews with nurses, it was revealed that guided imagination therapy and music therapy had not been employed because analgesic drugs were always utilized to relieve pain after appendicectomy surgery, and non-pharmacological measures were sometimes employed, including deep breathing relaxation therapy. (Endra Amalia and Yozi Susanti 2014).

Knowing Pain Intensity After Intervention in Post Appendicectomy Patients

The study aimed to assess the impact of classical music therapy on pain intensity in post-appendicectomy patients. The intervention consisted of six days of therapy (three sessions per day for two days), followed by a re-observation of the respondents' pain intensity. The mild category comprised 18 individuals (56.3%), the moderate category 14 (43.7%), and the heavy category 0 (0%). The mean value obtained after classical music therapy was 1.44.

The Effect of Classical Music Before and After Intervention on Post Appendicectomy Patients

The results of the study indicated that the mean pain intensity of respondents before classical music therapy was 2.59, while after classical music therapy it was 1.44. It can be concluded that there was a significant decrease in pain levels before and after music therapy treatment. The results of the data analysis using the t-test with a significance level of 95% ($q = 0.05$) yielded a p-value of 0.00, which is less than the significance level ($q = 0.05$). This indicates that the null hypothesis (H_0) is rejected, thereby supporting the conclusion that music can reduce the pain scale.

Based on the results of the types of music that can be used as music therapy, researchers have also incorporated musical instruments by consulting with an instrumental music expert. This expert has tailored the selection of types of music to the criteria for music that can be used as music therapy based on popular songs. The types of music have been adjusted to include tempos of 60 to 80 beats per minute, frequencies of 60 to 80 hertz, and major and minor keys, in accordance with the Pythagorean law key pattern.

4. CONCLUSION

With regard to the findings of the research, it can be observed that of the 32 respondents, the intensity of pain in post-appendectomy patients before performing classical music therapy was classified as mild in 0% of cases, while the intensity of post-appendectomy pain in the moderate category was 13% (40.6%), and the intensity of pain in the severe category was 59.4% (19 people). The mean value before classical music therapy was 2.59. The intensity of pain in the moderate category was 13 people (40.6%), while the intensity of pain in the severe category was 19 people (59.4%). The mean value before classical music therapy was 2.59. The results of the study indicate that, following the administration of classical music therapy in the mild category, 18 patients (56.3%) exhibited a reduction in pain intensity, while 14 patients (43.7%) in the moderate category demonstrated no change. The mean value of the respondents' pain intensity after classical music therapy was 1.44. The results of the T-test using SPSS revealed that classical music therapy had a significant effect on pain intensity in post-appendectomy patients. The mean value before therapy was 2.59, while the mean value after therapy was 1.44. The standard deviation (SD) value before therapy was 699, while the SD value after therapy was 504. Furthermore, the results of the data analysis using the t-test with a significance level of 95% ($q = 0.05$) yielded a p-value of 0.00, which is less than the significance level ($q = 0.05$). This indicates that the null hypothesis (H_0) is rejected, thereby supporting the hypothesis that music can reduce pain.

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