

THE EFFECT OF NON-PHARMACOLOGICAL THERAPY ON PAIN REDUCTION IN POST OP FRACTURE PATIENTS

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ABSTRACT

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Background: Fracture is a disruption of the continuity of bone tissue caused by traffic accidents or deformity. Fracture surgery is an invasive procedure that is usually performed on fracture patients. Surgery will of course have unpleasant impacts on the patient, one of which is pain. Pain arising from surgery or post-surgery can be reduced using non-pharmacological techniques. Non-pharmacological techniques that can be applied include deep breathing techniques, classical music therapy, cold compress therapy, aroma therapy, and finger-hold relaxation techniques. Objective: This research aims to analyze journals related to non-pharmacological techniques in reducing post-operative fracture pain. Method: Using literature review. The research samples analyzed were 5 articles. Data collection tools use Google Scholar, ResearchGate, and PubMed. Results: The 5 articles used in this literature review show an influence or reduction in the intensity of post-fracture surgery pain after being given non-pharmacological therapy. Conclusion: Non-pharmacological techniques can be used on patients who experience post-fracture surgery pain because the results of the analysis of several articles state that there is an influence or reduction in the intensity of post-fracture surgery pain.

1. INTRODUCTION

A fracture is a disruption of the continuity of bone tissue. Fractures are most often caused by direct external trauma or bone deformity such as pathological fractures in osteoporosis, while femur fractures are usually caused by traffic accidents (Singaram, 2019). Fracture surgery is invasive and traumatic for the patient. The complaint that often arises after surgery is pain (Widyasari, 2024).

Based on WHO data, in 2020, 5.6 million people died and 1.3 million people suffered fractures due to traffic accidents. Based on 2020 Riskesdas data, the fracture incidence rate in East Java was 6% (Widyasari, 2024).

Surgery or operations are all medical procedures that use invasive methods by opening or exposing the part of the body to be treated (Singaram, 2019). The surgical procedures usually performed on fracture

patients are OREF or ORIF. The surgical action itself will have an impact on the patient, the resulting impact is post-operative pain. The characteristics of pain felt by patients are pain such as burning, cutting and throbbing pain. There are pharmacological and non-pharmacological techniques to reduce pain. Pharmacological techniques use analgesic drugs as a result of collaboration between nurses and doctors. Meanwhile, non-pharmacological techniques are the independent actions of a nurse (Wahyuti, 2015).

Non-pharmacological therapy can be carried out in various ways, including distraction techniques, self-hypnosis, reducing the perception of pain, and cutaneous stimulation such as massage and relaxation. (Nurdin et al., 2015)

2. METODE

The design of this research is a Literature Review. A literature review is a method used to collect data or sources related to a particular topic which can be obtained from various sources such as journals, books, the internet, and other libraries. (Paskarina, 2019)

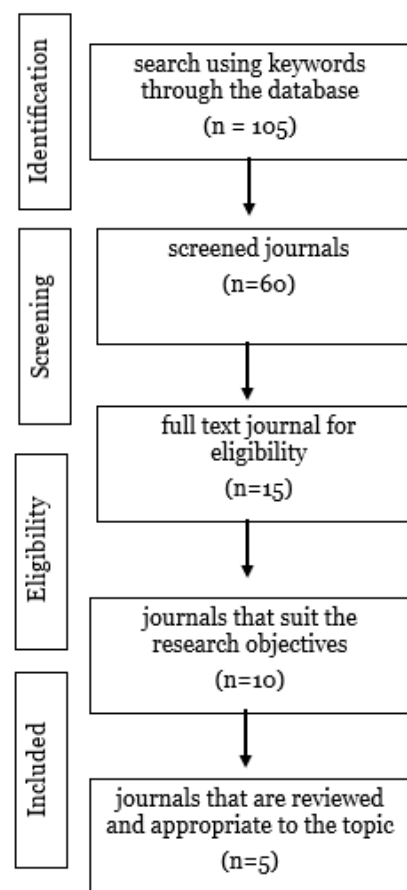
There are inclusion and exclusion criteria in this study. The inclusion criteria for this literature review are a maximum journal publication period of 5 years (2018-2023), original article, full-text article, respondents in the article aged > 10 years, respondents in the article are inpatients, and articles in English and Indonesian. The exclusion criteria themselves only use review articles.

The search and selection of studies was carried out by identifying database searches using Google Scholar, ResearchGate, and PubMed. Key words in Indonesian are non-pharmacological, pain, and post-op fracture. Inappropriate references can be excluded. Meanwhile, articles that meet the requirements are

retained. Extraction is carried out. In this review, the literature data is extracted using a narrative method by grouping similar extracted data according to the results measured to answer the objectives (Budiawan, 2019).

3. RESULTS AND DISCUSSION

Article searches using Google Scholar, ResearchGate, and PubMed.



The samples from this article are patients who experience pain after surgery and are given non-pharmacological techniques in the form of deep breathing techniques, classical music therapy, cold compress therapy, aroma therapy, and finger-hold relaxation techniques. These five articles show that there is a significant influence between post-operative fracture

pain and the use of non-pharmacological techniques.

According to research conducted by Igiyany (2018), there is a significant difference in the average intensity of post-surgical pain before and after deep breathing relaxation techniques with a value of $p=0.02$ ($p<0.05$). Using Quasi-Experimental research methods, with a pretest-posttest design with a control group approach. A sample of 30 people was taken using a purposive sampling technique. The bivariate analysis used in this study was the Independent t-test and the Dependent t-test to compare the average pain intensity between the control group and the experimental group.

This is in line with research conducted by Rokhman (2020) who in his research stated that there was an influence of finger grip relaxation techniques on pain perception in post-operative fracture patients at RSUD. Jombang. The research design used was quasi-experimental with a pretest-posttest with the control group. Sampling used consecutive sampling. The sample size was 42 people (21 people in the intervention group and 21 people in the control group). Pain was measured with the Visual Analog Scale. Statistical analysis uses non-parametric (Wilcoxon and Mann Whitney Test). Results of statistical analysis with Wilcoxon p-value of pain before and after in the intervention group ($p=0.000$); pain before and after in the control group ($p=0.030$).

Astuti's research (2020) shows that there is an effect of giving lavender aromatherapy on the pain scale, the pain scale before being given lavender aromatherapy was 5 while after being given lavender aromatherapy it was 4. The method used was quantitative and used a Pre Experiment with a One Group Pretest and Posttest design. The sample in this study was taken by purposive sampling with a total

sample of 17 respondents. Data collection tools include observation sheets and interviews. Data analysis used the Wilcoxon Matched Pair Test with a p-value = 0.002.

Sandra (2020) also conducted research on the effect of classical music therapy on pain levels. The results of his research showed that there was an influence of classical music therapy on pain levels in post-op fracture patients. The research was conducted using the Pre-Experiment design method with One Group Design, namely Pretest and Posttest. A sample of 16 respondents was taken using purposive sampling. Univariate and bivariate data analysis used the Wilcoxon test. The research results showed that the univariate (pretest) was 7 and (post-test) was 5, and bivariate with the Wilcoxon test obtained a Z value = 3.552a ($p<0.05$). Classical music therapy used includes Anyer and Jakarta, Lost Permatamu, Along the Way of Memories, My Heart Go On, and Mozart.

The results of research conducted by Ovi (2021) also stated that there was an effect of giving cold compresses on reducing the pain scale in post-operative fracture patients with a p-value of 0.000. The sample used was 15 respondents obtained by purposive sampling with inclusion and exclusion criteria. This research is quantitative research using the paired t-test statistical test.

4. CONCLUSION

This literature review shows that there are five journals that prove the influence or reduction in pain intensity after fracture surgery after being given non-pharmacological therapy. Non-pharmacological therapies found in this literature are deep breathing techniques, classical music therapy, cold compress therapy, aroma therapy, and finger-hold relaxation techniques.

It is hoped that this literature can provide input in managing pain in post-fracture surgery patients using non-pharmacological techniques.

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