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Autogenic relaxation on pain reduction in mothers post caesarean section: Literature review

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Abstract

Postoperative pain after cesarean section is one of the main problems that affect the comfort and recovery process of mothers. Inadequate pain management can affect the physical and psychological function of patients. Autogenic relaxation therapy, which involves self-relaxation techniques, is believed to help reduce pain intensity through control of physiological and emotional responses. The purpose of this study was to analyze journals on autogenic therapy for reducing pain in mothers with post-cesarean section surgery. Data collection method using a literature review study method using the Google Scholar journal database in the last 10 years, as many as 5 appropriate journals showed that there was an effect of autogenic therapy on reducing pain given on average for 3 days after 4 to 6 hours after surgery. The conclusion from the results of the analysis was a decrease in pain after autogenic relaxation therapy was given.

Keywords: Pain; Caesarean Section Operation; Autogenic relaxation; Journals

1. Introduction

Childbirth is a complex physiological process, but with medical indications to reduce possible complications, the Sectio Caesarea method becomes a surgical procedure performed when vaginal delivery is not possible or is high risk for the mother and baby. Based on a report by the World Health Organization (WHO), the number of births through Sectio Caesarea continues to increase globally, reaching 21% in 2023, far above the recommended limit of 10-15% of total deliveries. The number of deliveries using the Sectio Caesarea method continues to increase with data obtained in 2019 as many as 85 million actions, in 2020 as many as 68 actions and in 2021 as many as 373 million actions which mostly occur in America (39.3%), Europe (25.7%) and Asia (23%), this number is expected to continue to increase every year (1).

The method of delivery with Sectio Caesarea is also a trend in Indonesia with the number continuing to increase from 13.3% in 7,440 deliveries in 2013 to 17.6% of 78,736 deliveries in 2018. This increase can be caused by several factors, including changes in lifestyle, maternal preferences, to the increasing prevalence of medical indications such as preeclampsia, placenta previa, and fetal distress. Indonesia with the prevalence of Sectio Caesarea reaching more than 20% in several referral hospitals (2).

The Sectio Caesarea method has many advantages, especially in emergency conditions, but this procedure is not free from risks and long-term impacts. Post-sectio Caesarea pain is one of the main problems faced by mothers after undergoing the procedure (3). Uncontrolled pain can affect the recovery process, maternal activities, breastfeeding, and interactions with the baby. Post-sectio Caesarea pain has the characteristics of complex somatic and visceral pain, with an intensity that is often moderate to severe in the first 48 hours after surgery (4). This pain can affect the quality of

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sleep, mobility, and psychology of patients, and hinder newborn care (5). Effective pain management is essential to improve the quality of life of mothers after Sectio Caesarea, as well as prevent complications such as thrombosis due to immobility and prolonged psychological stress (5).

Postoperative pain management methods generally involve pharmacological analgesics such as non-opioid (NSAID) or opioids, but their use is often accompanied by side effects and the risk of dependence. Pharmacological pain management methods with a combination of non-pharmacological physical therapy and relaxation techniques have shown effective results in reducing pain intensity. Autogenic relaxation techniques are one of the non-pharmacological approaches that are starting to be widely used in pain management developed by Johannes Heinrich Schultz in 1932 as a relaxation training method to reduce stress (6). The main principle of autogenic relaxation techniques is to utilize self-suggestion to create a sensation of relaxation by focusing on body elements such as heaviness, warmth, and breathing patterns. This process involves a series of mental exercises designed to induce a state of relaxation and reduce muscle tension, which can indirectly reduce the perception of pain (7).

Research entitled autogenic relaxation in post-operative Sectio Caesarea at RSAD Kodam V Brawijaya Surabaya showed results on 30 respondents who were given post-partum autogenic relaxation with the Sectio Caesarea method processed with SPSS showed a p value of 0.000 so that from these results it can be concluded that autogenic relaxation can provide an effect on reducing pain (8). Various studies on the management of autogenic relaxation techniques for reducing pain have been carried out relaxation techniques that involve controlling the mind and focusing on body sensations to reduce physical and emotional stress. This technique can help post-operative patients including patients with sectio caesarea, in reducing pain by activating the body's relaxation response. Autogenic relaxation provides a sense of control over the body, which increases self-confidence and reduces anxiety, with reduced anxiety it will reduce the pain felt.

2. Material and methods

This research method uses literature studies with secondary data, including data collection activities, reviewing and reviewing the results of previous studies. The source of research data used comes from electronic journals with Google Scholar, as an article search using the keywords: Pain AND Sectio Caesarea AND Autogenic Relaxation. The study found 5 scientific works in the form of national journals in the period 2015 to 2024. Analysis of the results of scientific journals was carried out by reviewing, comparing the time, dosage of Autogenic Relaxation implementation on reducing pain in post-operative caesarean section patients

3. Results and discussion

The results of the study using the literature review method regarding autogenous relaxation on reducing the pain scale in post-operative caesarean section patients sourced from various national journals that are in accordance with the topic used by the author. Journal searches via Google Scooler were screened according to the inclusion and exclusion criteria using the Figure as follows:

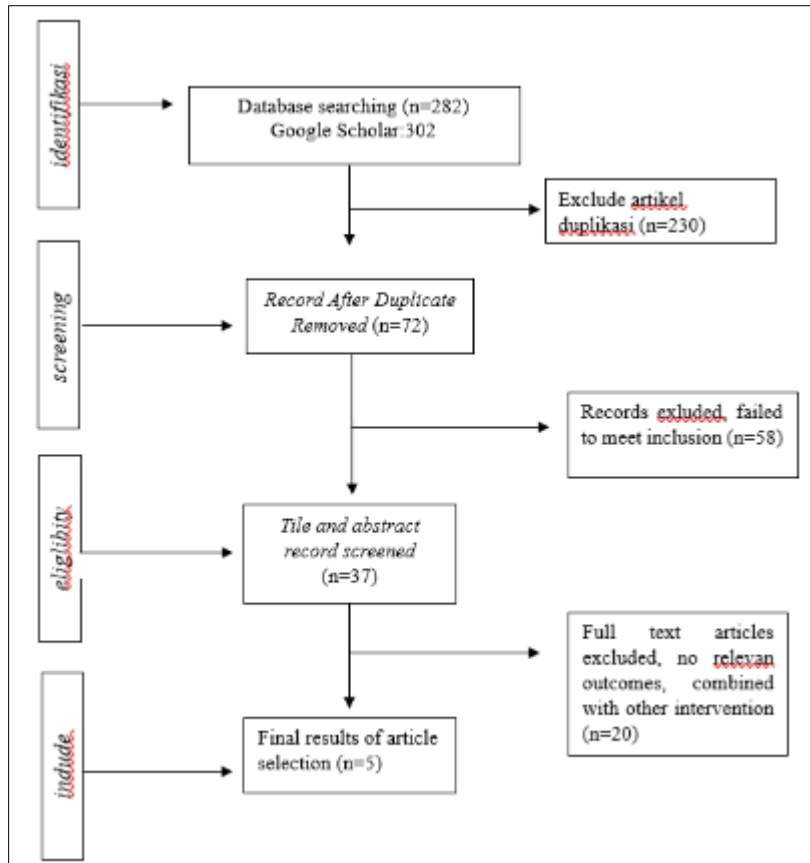


Figure 1 Systematic Selection of Articles Based on Inclusion and Exclusion Criteria of appropriate articles

Table 1 The results of the literature search that will be analyzed against 5 scientific journals obtained the following results

Researcher	Research method	Time Research	Results
Riris Andriati, Rita Dwi Pratiwi, Fenita Purnama Sari Indah 2019 (9)	quasy experimental, randomized pretestposttest with control group design	Relaxation therapy is done for 3 days. Day 1: 4-6 hours after surgery. Day 2: 24 hours after surgery Day 3: 24 hours after day 2	Average level of pain in the intervention group: 2.88 and the control group 3.48. The results of the Mann Whitney test p-value $0.024 < 0.05$
Jufri, Roby Aji Permana, Ibnu Widagdo 2019(8)	experimental with one group pretest-posttest design	Relaxation therapy is carried out for 4 days	Analysis using the Wilcoxon test obtained a p value of 0.000, so there was a significant difference in the pain scale before and after the autogenic relaxation technique was given.
Lesi Susanty, Ardiana Podesta 2019 (10)	pre-experimental design uses pre and post test design.	Therapy is carried out for 3 days by observing the level of pain before and after the autogenic reaction.	T-test analysis found that there was an effect of autogenic relaxation on changes in pain scale in post-cesarean section mothers $p = 0.000$
Septyani Nevy Mega Nurastam, Roni	Quasi Experimental with two group pre test	Therapy is carried out 6 hours after the	Statistical test analysis obtained a p value of 0.000, so autogenic relaxation

Yuliwar, Susi Milwati 2019 (11)	and post test design approach	Caesarean section operation for 6 days.	was able to reduce the pain scale of post-Caesarean mothers.
Nung Aati Nurhayati, Septian Andriyani, Novi Malisa 2015 (12)	Experiment with One Group Pretest Posttest Design	Post-operative Sectio Caesarea 24 hours is performed for 20 minutes	The results of the statistical test obtained a P value = 0.001 where this value is <0.05, meaning there is a difference in the pain scale between before and after autogenic relaxation.

The method of delivery used as an option for mothers without complications is spontaneous delivery as a process of giving birth to a baby through the birth canal without surgical intervention and the use of tools such as vacuum and forceps. Delivery can proceed normally, but not infrequently the delivery process experiences obstacles and surgical operations must be performed (13). The surgical method of caesarean section is the main choice if the condition of the fetus and mother is in an emergency and must be saved immediately. Indications for caesarean section delivery are carried out by cutting off the continuity of the tissue with an incision to remove the baby and leaving pain receptors in the incision wound and pain increases when the anesthetic has run out(14).

Problems that arise in post-operative caesarean procedures will experience pain in the incision wound caused by tears in the abdominal wall tissue(15). Pain becomes a sensory and emotional stressor in the form of an uncomfortable sensation due to tissue damage. The measurement used as a tool to identify pain can be used Numeric rating Scale. Management used to overcome pain using pharmacological methods such as analgesic drugs as a collaborative effort of nurses in reducing pain levels(16). In addition, appropriate non-pharmacological methods that are applied to patients gradually can help reduce pain intensity (17).

Autogenic relaxation therapy is one of the non-pharmacological therapies that is useful for reducing physical tension, lowering pulse, blood pressure and respiration. Autogenic relaxation is a method that involves self-suggestion to achieve a state of physical and mental relaxation (10). This technique helps patients reduce pain by focusing on body sensations, such as a feeling of heaviness and warmth in the muscles, and regulating breathing. The mechanism of reducing pain with autogenic relaxation is by stimulating the parasympathetic nervous system which can calm the body, in addition autogenic relaxation can stimulate the release of endorphins which work as pain relievers that provide analgesic effects (8).

Based on the results of the analysis conducted through literature studies, it can be concluded that the implementation of autogenic relaxation is carried out on average 4 to 6 hours after surgery. Autogenic relaxation management is carried out for 20 minutes for 3 days. This autogenic relaxation therapy provides a distraction effect as well as relaxation by diverting the respondent's focus on the pain felt by imagining themselves in a calm and peaceful state. Pain is observed before and after autogenic relaxation with a pain assessment using the Numerical Rating scale with interview guidelines and recording on the observation sheet.

4. Conclusion

Based on the article that has been analyzed by the author, mothers with post-operative cesarean section experience pain disorders for 4 to 6 hours which are carried out on average 3 days after the procedure. Autogenic relaxation therapy is one of the non-pharmacological efforts that can be applied to mothers in reducing pain. The mechanism of reducing pain by stimulating the parasympathetic nervous system which can calm the body, stimulate the release of endorphins which work as pain relievers that provide analgesic effects.

Compliance with ethical standards

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Disclosure of Conflict of interest

The author declares no potential conflict of interest

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