



## Implementation of Benson Relaxation Technique to Reduce Acute Pain Post-Cesarean Section

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### ABSTRACT

Childbirth is the stage of expelling the products of conception through the birth canal with or without assistance. The birth process is classified into 2 ways, namely normal delivery and cesarean section (Sectio Caesarea). Cesarean section can have a negative impact, namely physically causing pain in the stomach during surgery which has a higher pain level, namely 27% compared to the normal birth stage which has a lower pain level, namely 9%. Pain can be prevented with non-pharmacological therapy, one of which is the Benson relaxation technique. This study aims to determine the effectiveness of the Benson relaxation technique in reducing pain in mothers after cesarean section. This research is qualitative research with a case study method using a nursing process approach. The subjects used were post-cesarean section patients with acute pain problems at Kardinah Hospital, Tegal City. The research instrument used was the maternity nursing care format. Research data collection techniques are observation, interviews, physical examination and documentation studies. The instrument used to measure pain is the Numeric Rating Scale (NRS), pain measurements are carried out before and after the Benson relaxation technique. The results of applying the Benson relaxation technique to mothers after cesarean section showed that the patient experienced a decrease in the level of pain from the first day of treatment to the third day of treatment, namely from a scale of 7 to a scale of 3. These results show that the Benson relaxation technique was able to minimize the scale of pain in mothers after cesarean section.

**Keywords:** Pain, Sectio Caesarea, Benson Relaxation

### 1. INTRODUCTION

During labor, the baby is born and carried to term or able to survive outside the womb after passing through the birth canal with or without medical assistance. This stage begins with the onset of labor contractions, accompanied by progressive changes in the cervix, and ends with the delivery of the placenta (Hikmandayani *et al*, 2024).

The process of childbirth is classified into two methods: normal delivery and cesarean section (Sectio Caesarea). Cesarean section is a procedure to deliver the fetus by making an incision in the abdominal wall and the uterine wall (Sakriawati & Jamon, 2024). This surgical procedure has been increasingly performed worldwide.

The rate of cesarean sections is relatively high in Indonesia, despite the World Health Organization (WHO) setting a global average

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of about 5-15% per 1000 births (Maulida, 2023). The cesarean section rate in Indonesia is higher than the 5-15% standard set by the World Health Organization. Riskesdas (2018) reported that a survey conducted over the past 5 years in Indonesia, involving 20,591 women from 33 provinces, showed a cesarean delivery rate of 15.3%. According to the Ministry of Health of the Republic of Indonesia (2018), the number of cesarean sections performed in hospitals in Indonesia ranges from 20% to 25% of all births, with significantly higher rates of 30% to 80% recorded in private hospitals. Based on the Central Java Health Profile for 2019, 3,401 out of 170,000 births, or about 20% of all births, were cesarean deliveries (Kemenkes Jawa Tengah, 2019).

For example, cesarean sections increase the risk of postoperative abdominal pain to 27.3%, compared to only 9% for normal deliveries. Cesarean sections can also lead to complications such as puerperal infections, which can be mild and accompanied by an elevated body temperature during the postpartum period, or more severe conditions such as sepsis and peritonitis.

Pain can be managed through pain management strategies aimed at minimizing the pain experienced by the client to a comfortable level. There are two types of pain management: non-pharmacological and pharmacological. Non-pharmacological techniques to minimize pain include therapeutic touch, affective techniques, relaxation, acupressure, distraction, warm and cold compresses, and Benson's relaxation technique (Rukmasari *et al.*, 2023).

Benson's relaxation technique is a method to prevent pain through the use of deep breathing and the repetition of words based on an individual's belief. This relaxation requires a spiritual component, which can create a specific internal environment to help the patient achieve a healthy and peaceful state (Anggraeni, 2022).

The key to Benson's relaxation technique is to focus on repeating a set of predetermined words or phrases while simultaneously taking deep breaths and adopting a completely surrendered attitude towards God. Exhaling releases carbon dioxide (CO<sub>2</sub>) and inhaling oxygen, which the body uses to purify the blood

and avoid hypoxia, a condition that can harm brain tissue. Therefore, deep breathing provides sufficient energy. Deep breathing requires the diaphragm to rise and the lower ribs to be pushed back by the abdominal wall muscles (rectus abdominis, transversus abdominis, internal obliques, and external obliques). The irritation of the abdomen may be caused by increased intra-abdominal pressure resulting from this. As blood flows more freely through the abdominal aorta and inferior vena cava, blood circulates throughout the body, delivering more oxygen to vital organs such as the brain and allowing the body to relax (Anisah & Maliya, 2021).

Postoperative pain is sometimes accompanied by anxiety, fear, and depression. This reaction can lead to increased sympathetic responses, such as elevated levels of catecholamines, norepinephrine, and noradrenaline, which can exacerbate the intensity of pain. Benson's relaxation can reduce anxiety, stress, metabolism, and discomfort, lower blood pressure, decrease heart rate, and release hormones that reduce pain intensity.

This is supported by research conducted by Meilani & Puspitasari in 2024 at RS Nuraida Bogor, which found that 35 participants (100%) reported mild pain, 3 (9% of the total) reported severe pain, and 32 (91%) reported moderate pain, with a p-value of  $0.000 < 0.005$ , indicating that the use of Benson's relaxation technique is associated with a reduction in pain intensity. Patients at RS Nuraida Bogor experienced less postoperative pain when using Benson's relaxation technique.

Various methods for alleviating discomfort in postpartum women undergoing cesarean sections can impact both the mother and the baby. Therefore, nurses should implement non-pharmacological therapies to minimize symptoms in postpartum SC mothers. This motivated the researcher to recommend the use of Benson's relaxation technique to minimize pain experienced by Mrs. N following a cesarean section at RSUD Kardinah Tegal City in 2024.

## 2. METHODS

The research is a qualitative study using a case study method with a nursing process approach. The sampling method employed is total sampling. The subject of the study is a single postoperative cesarean patient, Mrs. N, a 33-year-old woman in the Mawar Room at RSUD Kardinah Kota Tegal, with acute pain issues. The criteria used by the researchers to identify the subject include: 1) An adult client who underwent cesarean delivery, 2) Not impatient with others, and 3) Willing to undergo treatment at times specified by the researcher.

The researcher used instruments derived from the postpartum care format currently established by Universitas Harapan Bangsa. After collecting information through interviews, observations, and physical examinations, the researcher analyzed the data to determine the nursing diagnosis. Subsequently, a treatment plan was created, implemented, and evaluated by the researchers.

To measure pain, the Numeric Rating Scale (NRS) was used, where 0 represents no pain, 1–4 represents mild pain, 5–6 represents moderate pain, and 7–10 represents severe pain. Benson's relaxation technique was believed by the patient to reduce pain levels. Treatment was administered daily for ten to fifteen minutes, and findings were recorded on observation sheets. Pain data were collected before and after the application of Benson's relaxation technique. Nursing procedures were offered three times within a 24-hour period.

## 3. RESULT AND DISCUSSION

### 3.1 Result

To alleviate postoperative pain, this chapter will discuss the basics of obstetric care involving Benson's relaxation technique. Everything from assessment and data analysis to nursing diagnosis, interventions, and evaluations are covered in this case summary.

Patient evaluation was conducted on January 31, 2024. The results, based on subjective information, indicate that after a cesarean section, the patient complained of abdominal pain. Although the pain was in the lower abdomen, it did not radiate. On a scale

from 0 to 10, the pain was rated at 7 (severe), described as a sharp pain that worsened with movement. The patient's expression showed sadness and anxiety. No one in the patient's immediate environment or family knew how to manage her pain.

Postoperative pain is associated with physical causes, according to the Indonesian Nursing Diagnostic Standards (SDKI) (D.0077). When setting goals and measuring patient success, Mrs. N referred to the Indonesian Nursing Outcome Standards (SLKI). These standards state that the patient should experience a reduction in pain (L.08066) with standard outcomes as follows: reduction in moderate pain complaints (4), reduction in grimacing (4), reduction in protective posture (5), and reduction in anxiety (5). The most important action for Mrs. N was to provide Benson's relaxation technique as an innovative intervention based on evidence-based practice and research related to pain reduction, as well as supporting pain management (I.08238) and postpartum care education according to Indonesian Nursing Intervention Standards (SIKI).

The researcher documented nonverbal pain responses, factors exacerbating pain, location, characteristics, duration, frequency, quality, intensity, and size, starting from the first day of implementation, January 31, 2024. Based on the collected data, the patient's pain level remained at 7 (severe). Subsequently, the researchers introduced a non-pharmacological technique called Benson's relaxation method. This technique required the patient to focus, close her eyes, and relax every muscle in her body. The patient was then instructed to recite or read a prayer solemnly. The treatment usually lasted about ten to fifteen minutes. The patient's pain level slightly decreased after using Benson's relaxation technique, rated as 6 out of 10.

On the second day of implementation, February 1, 2024, the patient reported a reduction in pain to level 4 (moderate) when the researchers re-applied Benson's relaxation technique. The researchers then taught Benson's relaxation technique to the postpartum cesarean section patient on the third day of implementation. A pain level of 3 (mild) indicated a significant reduction in pain, which

Mrs. N demonstrated. Additionally, the patient mentioned that she slept about seven hours the previous night. There were no signs of concern or discomfort from the patient, as the pain had resolved.

**Table 1. Pain scale after and before the implementation of the benson relaxation technique in the client**

Klien	Day 1		Day 2		Day 3	
	Pre	Post	Pre	Post	Pre	Post
Mrs. N	7	6	6	4	4	3

The researcher evaluated the program and care actions performed after implementation to determine the success of the program. The evaluation on the first day, January 31, 2024, revealed that Mrs. N reported experiencing persistent pain, similar to being stabbed, post-operatively. Mrs. N's pain was not yet at level 6 (moderate) but had progressed towards it. According to Mrs. N, movement worsened her pain. Evidence from external sources indicated that Mrs. N still appeared stressed. Indicators of standard outcomes included moderate grimacing (3 points), moderate protective posture (3 points), and moderate anxiety (3 points).

The evaluation on the second day obtained from subjective data indicated that Mrs. N's pain had started to decrease from 6 (moderate) to 4 (moderate). Evidence from external sources still showed that Mrs. N appeared stressed. Indicators of standard outcomes included moderate pain complaints (3 points), reduction in grimacing (4 points), reduction in protective posture (5 points), and reduction in anxiety (4 points). The researcher continued to provide Benson's relaxation technique the following day, after determining that this intervention partially reduced the pain level.

On the final day of evaluation, February 2, 2024, the patient's anxiety level decreased, she stopped grimacing in pain, and her pain level dropped by three levels (to mild pain). Decreased anxiety (5 points), protective posture (5 points), grimacing (4 points), and pain complaints (4 points) were characteristic markers of this outcome. These signs indicated that the pain level had significantly reduced.

## 3.2 Discussion

### 3.2.1 Assessment

This study used interview and observation methods. The assessment of Mrs. N revealed the following focal data: subjective data P: the patient complained of pain, which worsened with movement, Q: the pain felt like being stabbed, R: pain located in the abdomen post-SC and did not radiate, S: pain rated 7 on the scale (severe), T: pain was intermittent and improved with rest. Objective data showed that the patient appeared restless, had a pained facial expression, and had a post-operative section caesarea wound dressing.

Anxiety, fear of being alone, and disturbances in perception of other sensations (due to sensory stimulation and memory) are effects of pain that have many facets. Depending on the duration, pain can be classified as acute or chronic (A.A & Boy, 2020).

A Cesarean section involves cutting through the anterior abdominal wall, which is why the patient experiences pain at the incision site. As is common after a Cesarean section, the patient may also experience discomfort in the back and neck due to the effects of the epidural anesthesia used during the surgery. Due to the intensity of post-operative pain, the patient might experience discomfort during early mobilization, which can lead to other complications (Febiantri & Machmudah, 2021).

### 3.2.2 Nursing Diagnosis

Acute pain from physical injury (surgery) is one of Mrs. N's nursing problems according to the Indonesian Nursing Diagnostic Standards (SDKI). This conclusion is drawn from anecdotal evidence: the patient experiences worsening abdominal pain when moving after the Cesarean section, consistent with her complaints.

Acute pain is defined as sensory or emotional pain associated with actual or potential tissue damage; it can start suddenly or gradually; range from mild to severe; and typically does not last more than three months. Experiencing pain is a common side effect of many medical procedures, including diagnosis



and treatment. Among all ailments, pain is one of the most debilitating and disruptive.

Symptoms experienced by the patient, including signs of acute pain such as dark circles under the eyes, disorientation, blurred eye movements, and grimacing, suggest a diagnosis of chronic pain syndrome. Focus signs (such as restlessness, moaning, crying, or heightened alertness) and variations in vital signs (such as pulse, respiratory rate, oxygen saturation, and blood pressure) are also noted.

### 3.2.3 Nursing Plan

Based on the nursing questions provided, the Indonesian Nursing Outcome Standards (SLKI) are used to set the goal: pain level is 0.88066. A person's subjective or objective perception of pain can range from mild to moderate intensity and may be directly visible or develop over time as a response to functional or actual tissue damage. The goal is to reduce the pain level after three rounds of nursing actions within 24 hours. Reducing the number of grimaces and primary complaints of pain is a key outcome criterion. Anxiety and protective behavior are expected to decrease.

The Indonesian Nursing Intervention Standards (SIKI) for Pain Management (I.08238) provide potential interventions. The term "pain management" refers to the process of recognizing and alleviating the emotional and sensory symptoms of tissue or functional issues. These symptoms can be moderate, sudden, or persistent, with severity ranging from mild to severe. The steps for relieving pain include: (1) conducting a comprehensive pain assessment, considering the origin, nature, duration, frequency, quality, and intensity of the pain, as well as any factors that may affect its onset or severity; (2) identifying nonverbal pain signals; (3) addressing situations that exacerbate the pain; (4) ensuring adequate sleep; (5) providing and instructing on non-medication methods to alleviate pain, and administering pain relief medication as prescribed by a doctor.

Researchers in SIKI implement a program to educate patients about non-pharmacological pain relief techniques, specifically the Benson relaxation method. According to Purwanto, the Benson relaxation technique reduces

sympathetic nervous system activity, leading to vasodilation, improved blood circulation, increased oxygen delivery to tissues, especially peripheral tissues, and reduced pain intensity (Agustin et al., 2019).

### 3.2.4 Nursing Implementation

The Benson relaxation technique was applied to Ny. N as part of the client implementation. Clients were advised to relax their entire body, concentrate, and close their eyes. They were instructed to recite spiritual phrases aloud to themselves, repeating them with enthusiasm for ten to fifteen minutes daily.

After three days, Benson relaxation is considered effective if there is a reduction in pain level; otherwise, it is deemed invalid if pain levels increase. Proof and measurement are methods used to achieve this goal.

According to Endayani et al. (2020), one way to teach a subject is through demonstration. This involves physically showing the source what they need to know, whether it is a real-life scenario, object, or process. One method to measure the effectiveness of nursing care is to track patient reactions after receiving care.

### 3.2.5 Nursing Evaluation

The influence of the Benson relaxation therapy on Ny. N, where the patient reported less pain between the first and third days of treatment, is demonstrated in Table N. This indicates the effectiveness of the Benson relaxation technique in reducing pain. The results of this study align with Rustini & Tridiyawati (2022), which showed that the Benson relaxation technique had a significant impact on reducing pain intensity in patients treated at RSUD Bekasi post-section caesarea in 2021, with a p-value of 0.000 ( $<\alpha 0.05$ ).

This case study is consistent with the case study by Kamallia and Haniyah (2023) at RSUD Prof. Dr. Margono Soekarjo, which showed that the Benson relaxation technique effectively reduced postpartum pain in mothers, from severe pain level 8 to moderate pain level 4.

To achieve a state of deep relaxation and ease, one can practice the Benson Relaxation Technique, which is a breathing technique

integrating personal belief principles with the goal of balancing brain oxygen levels. Initially, muscles experience the calming effects of this condition, and then the hypothalamus senses the calming effects of Corticotropin-Releasing Factor (CRF) (Purba et al., 2021).

To enhance the production of cerebral medulla heparin, CRF stimulates the pituitary gland to produce more Pro-opiomelanocortin (POMC). Beta-endorphin is a neurotransmitter received by the pituitary gland. The sympathetic nervous system is activated when a mother experiences anxiety and nervousness post-section caesarea. Therefore, Benson emphasizes the importance of managing pain, anxiety, tension, and insomnia during relaxation (Purba et al., 2021).

## CONCLUSION

Post-section caesarea, the patient's pain levels ranged from very severe (level 7) to mild (level 3), according to the research author. Pain management care included the Benson relaxation technique, where participants were asked to practice for about 10-15 minutes each day for three days. Thirdly, patients should learn to relax their muscles using the Benson relaxation technique so that they can reduce pain without medication and share these skills with others. To improve the quality of pain management services for patients experiencing acute pain post-section caesarea, the Benson relaxation technique is clinically utilized in obstetric care as part of the nursing technology development process.

## ADVISE

It is hoped that this will increase knowledge and awareness among healthcare professionals about managing acute pain, especially for postpartum SC mothers, through non-pharmacological methods such as the Benson relaxation therapy. The application of the Benson relaxation technique as a non-pharmacological method for acute pain management in postpartum SC mothers is encouraged. Future researchers are also encouraged to conduct case studies with the Benson relaxation technique administered

before medication to maximize its effectiveness in reducing pain levels.

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