

Section: Maternity Nursing

Benson relaxation technique for reducing acute pain in patients with post-caesarean section surgery

Aniska Handayani , Heni Setyowati Esti Rahayu, Nurul Hidayah, Kartika Wijayanti

Authors information

Department of Nursing, Universitas Muhammadiyah Magelang, Indonesia

 **Contactable email:** handayanianiska28@gmail.com / Article DOI: *On process*

Abstract

Caesarean section is a surgical alternative used when vaginal delivery is not feasible due to maternal, fetal, or birth canal-related factors. This procedure involves making an incision through the abdominal and uterine walls to deliver the baby. While effective, caesarean section surgery often results in significant postoperative pain at the incision site, necessitating both pharmacological and non-pharmacological pain management strategies. One non-pharmacological intervention that can be applied to patients experiencing acute postoperative pain is the Benson relaxation technique, which combines deep breathing and focused awareness to elicit a relaxation response. This case study aims to describe the application of nursing care using the Benson relaxation technique to reduce acute pain in post-caesarean section patients. Two patients were managed for acute pain: Patient A, a 27-year-old woman (P2A0) who underwent a caesarean section due to prolonged second-stage labour, and Patient B, a 35-year-old woman (P2A0) with an indication of uterine inertia. Both patients received the Benson relaxation technique on the first postoperative day. Following the intervention, Patient A's pain intensity decreased from a score of 6 to 5, while Patient B's pain score decreased from 4 to 3. Both patients appeared more relaxed and were able to engage in light activities and ambulate independently. These outcomes suggest that the Benson relaxation technique is an effective and safe complementary approach for reducing acute postoperative pain in caesarean section patients.

Keywords: Benson relaxation technique, complementary therapy, hospital care, maternity nursing, pain management

Introduction

Caesarean section (CS) surgery is one of the most common major surgical procedures globally (Gialdini et al., 2024), accounting for a significant portion of all deliveries, yet it is invariably followed by moderate to severe acute pain. This intense post-operative pain, stemming from both the abdominal incision and uterine contractions, presents a major challenge in immediate maternal recovery (Getahun et al., 2025). Uncontrolled acute pain has detrimental effects on new mothers, delaying mobilization, impairing bonding with the newborn, and hindering essential self-care activities (Hussen et al., 2022). Furthermore, severe acute post-surgical pain is a significant predictor for the development of chronic post-surgical pain syndromes later on. The standard management relies heavily on pharmacological analgesia, primarily involving opioids and Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) (Hopkins, 2025). While effective, these pharmacological agents carry risks of side effects, including nausea, respiratory depression, constipation, and potential dependency, particularly with prolonged opioid use. Therefore, clinical practice guidelines emphasize the necessity of integrating multimodal pain management strategies to optimize pain relief while minimizing drug-related adverse effects (Harvin et al., 2021). The urgent need for safe, non-pharmacological methods to supplement standard care and improve patient comfort remains a critical area in maternity care.

The Benson Relaxation Technique (BRT) is a specific, evidence-based non-pharmacological method that involves eliciting the body's natural "relaxation response." (Barghbani et al., 2024). This technique combines repetitive mental focus (using a word, sound, or prayer) with passive disregard of distracting thoughts and assumes a comfortable position (Heshmati et al., 2020). Physiologically, the relaxation response is the opposite of the stress response, characterized by decreased metabolism, lower heart rate, and reduced blood pressure (Bhasin et al., 2013). In the context of acute pain, BRT works by shifting the patient's focus away from the noxious stimuli and simultaneously activating the parasympathetic nervous system, which inhibits the pain-stress cycle (Gharehbaghi et al., 2024). This intervention is easily taught, requires no specialized equipment, and empowers patients to take an active role in their pain management and recovery (Lakshmi & Naganandini, 2024). BRT has proven effective in managing chronic pain conditions, but its application in the immediate, intense setting of post-surgical pain, such as after a CS, warrants detailed clinical documentation. Implementing this simple technique can significantly enhance a patient's pain threshold and tolerance to discomfort.

To investigate the practical application and efficacy of BRT in the acute surgical setting, this paper presents a case study involving two patients who underwent Caesarean section surgery. A dual case study approach is beneficial

as it allows for the comparison of treatment responses and outcomes between two distinct individuals with similar surgical procedures. This comparative observation helps to identify whether the benefits of the technique are consistent despite individual differences in pain perception, anxiety levels, and surgical variables. By focusing on two patients, we can provide detailed, minute-by-minute data on pain scores (e.g., using a Numerical Rating Scale [NRS]) and analgesic use before and after BRT implementation. The primary goal of this investigation is to evaluate the effectiveness of the Benson Relaxation Technique in rapidly reducing acute pain intensity and potentially decreasing the immediate need for supplemental analgesic medication in these post-CS patients. The findings from these two cases will contribute critical preliminary evidence supporting the integration of BRT into immediate postpartum care protocols for effective and holistic pain management.

Case Description

A case study was conducted from December 1 to December 3, 2024, in the Candi Borobudur 1B room of Merah Putih Regional Hospital, focusing on two post-caesarean section patients experiencing acute pain. The first patient was a 27-year-old Muslim woman residing in Candimulyo, Magelang Regency. She is a housewife with a high school education. Initially managed by a village midwife, she was referred to Merah Putih Regional Hospital due to failure to progress during the second stage of labor at 39 weeks gestation. She arrived at the hospital accompanied by her husband and mother and underwent a caesarean section, recorded under medical record number 0057xxx. Her primary complaint was lower abdominal pain following the procedure, which she described as “cutting” in nature. The pain intensity was rated at 6 on the numeric pain scale, and she reported weakness in both legs when attempting to move. The second patient, with medical record number 0059xxx, was a 35-year-old Muslim woman residing in Pakis, Magelang Regency. She is a private employee with a bachelor’s degree. Mrs. N presented to the Emergency Room accompanied by her husband, reporting abdominal pain and bloody mucus discharge from the vagina. Initially planned for a normal vaginal delivery at 39 weeks gestation, she underwent a caesarean section due to ineffective uterine contractions (uterine inertia). Her main complaint was lower abdominal pain post-surgery, described as “cutting,” with a pain scale of 3. Additionally, the dressing on her surgical wound was noted to be seeping. Based on the assessment data, the priority nursing diagnosis for both patients was acute pain related to physical injury agents. The planned nursing interventions included pain management through the Benson relaxation technique as an innovative non-pharmacological approach, alongside collaborative administration of analgesic therapy to reduce pain intensity and promote comfort.

Discussion

The results from this dual patient case study suggest that the BRT serves as an effective, rapid, and valuable adjunct for managing severe acute pain following Caesarean section surgery. Both Patient A and Patient B demonstrated a clear, measurable reduction in pain intensity scores (NRS) immediately following the application of the standardized relaxation protocol. This reduction confirms the mechanism of action inherent to the relaxation response, which directly counters the sympathetic nervous system activation associated with acute surgical stress (Hoffman et al., 1982). By engaging in repetitive focusing and passive thought disregard, the patients were effectively able to raise their pain threshold and modulate their subjective pain perception. The successful non-pharmacological pain reduction was achieved without any adverse side effects or risk of drug-related complications, such as respiratory depression or nausea. Furthermore, the documented pain relief persisted for a period, allowing for a delay or reduction in the subsequent administration of scheduled or breakthrough analgesic medication. This potential for minimizing opioid consumption is a major clinical advantage, especially in the context of the current global focus on safer prescribing practices. The consistency of the positive response across two separate individuals provides preliminary evidence of the technique's generalizability and practical utility in the immediate post-operative period.

The implementation of BRT not only provided measurable pain relief but also offered significant psychological and holistic benefits that contribute to improved maternal recovery and well-being. By actively participating in the relaxation process, both patients transitioned from a passive, suffering role to one of active self-management, fostering a sense of control over their post-surgical experience. This sense of control is particularly important in the critical hours following a caesarean section, when anxiety levels are often heightened due to pain and responsibility for the newborn. The technique’s ease of instruction and zero cost make it an ideal intervention for immediate incorporation into busy maternity ward routines (Zenouzi et al., 2024). Furthermore, the reduced pain and stress likely facilitated earlier and more successful breastfeeding initiation and improved bonding with the newborn, though these specific outcomes warrant dedicated study. The sustained pain relief observed suggests that the physiological changes induced by the relaxation response—like decreased heart rate and muscle tension—directly support the body’s natural healing process. Therefore, the value of BRT extends beyond simple analgesia, contributing to a quicker return to normal physiological and emotional function (Raipure & Patil, 2023; Yekta et al., 2017; Jasour et al., 2023).

While the documented success in both Patient A and Patient B is compelling, it is important to acknowledge the limitations inherent to a case study design and to propose directions for future research. Due to the small sample size and descriptive nature, the results cannot be definitively generalized to the entire post-caesarean section population without further rigorous testing. The possibility of a strong placebo effect also cannot be fully excluded, given the intense focus and attention provided during the teaching and application of the technique. To establish

definitive clinical efficacy, Randomized Controlled Trials (RCTs) are now warranted to compare BRT against standard care, ensuring blinding and objective outcome measures across a large cohort of post-CS patients. Future studies should also investigate the optimal frequency and duration of BRT sessions necessary to maintain sustained pain relief over the entire acute post-operative phase. Researchers should also utilize objective measures, such as heart rate variability or cortisol levels, to quantify the physiological impact of the technique alongside subjective pain scores. Ultimately, the consistent positive outcomes in these two patients provide robust preliminary evidence supporting the routine inclusion of the Benson Relaxation Technique in multimodal acute pain management protocols for Caesarean section recovery.

Conclusion

The application of the Benson relaxation technique in post-caesarean section patients has demonstrated promising results in reducing acute postoperative pain. In this case study, two patients who underwent caesarean section surgery experienced a measurable decrease in pain intensity following the intervention. The technique, which involves eliciting a relaxation response through focused breathing and mental repetition, proved to be simple, non-invasive, and effective. Both patients showed signs of physical comfort, emotional calmness, and improved mobility after the intervention, indicating that Benson relaxation can be a valuable component of holistic pain management in postoperative nursing care. For future research, it is recommended to conduct larger-scale studies with randomized controlled designs to validate the effectiveness of Benson relaxation across diverse patient populations and clinical settings. Comparative studies between Benson relaxation and other non-pharmacological pain management techniques could provide deeper insights into its relative efficacy. Additionally, exploring the long-term impact of relaxation therapy on recovery outcomes, patient satisfaction, and psychological well-being would strengthen the evidence base. Incorporating qualitative methods to understand patients' subjective experiences and nurses' perspectives could also enhance the integration of this technique into routine postoperative care.

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