

Research Article

Implementation of Nursing Care for Post-Cesarean Section Patients with Early Mobilization Techniques to Reduce Pain in the Emergency Room Mushawwir Sitti Khadijah Hospital , Makassar

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Abstract: Acute pain is a common complaint in post-cesarean section patients due to incision tissue damage and post-surgical inflammation. Early mobilization is a non-pharmacological intervention that plays an important role in reducing pain intensity, improving circulation, and accelerating functional recovery. Methods: A case study approach was conducted on a post-cesarean section patient with acute pain. The intervention included extremity mobility exercises, position changes, sitting on the edge of the bed, and gradually light activity. Results: After early mobilization, which was carried out gradually from the first to the third day, the pain scale decreased from 7/10 to 4/10. The patient showed increased activity tolerance and mobilization ability, as well as increased extremity muscle strength to optimal levels. Education on self-monitoring of pain and collaborative analgesic administration were reinforced throughout the care. Evaluation showed that early mobilization effectively reduced pain intensity and increased patient participation in the recovery process. Conclusion: Early mobilization as part of post-cesarean section care has been shown to reduce acute pain after Caesarean section surgery and support functional recovery. The gradual implementation of early mobilization, integrated with pharmacological management, is highly recommended in post-cesarean section care practices to improve the quality of care and patient clinical outcomes.

Keywords: Early Mobilization, Acute Pain, Post-Cesarean Section, Nursing Care, Pain Management1. Introduction

1. Introduction

Received: May 27 2026

Revised: June 20 2026

Accepted: July 27 2026

Published: July 30 2026

Curr. Ver.: July 30 2026



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Labor section Caesarean section (CS) is procedure surgery For give birth to baby through incision in the wall abdomen and uterus . This procedure is usually performed based on medical indications, either for the mother or the fetus. Some of these indications include placenta previa, abnormal fetal position or presentation, and other conditions that could endanger the safety of the mother and fetus. (Aslamiyah et al., 2023) According to World Health Organization (WHO), ideal birth rate with Caesarean Section (CS) is 5–15% of total births . However , data *from the Global Survey on Maternal and Perinatal Health* 2011 shows The CS rate reached 46.1% (WHO, 2019). In Indonesia, based on the 2018 RISKESDAS (National Health Research), the proportion of CS was 17.6%. This procedure is generally performed due to complications (23.2%), such as abnormal fetal position, premature rupture of membranes, prolonged labor, umbilical cord entanglement, bleeding, hypertension, and other factors.(Alamsyah et al., 2025; Cahyani, 2023).

Caesarean section delivery can cause physiological responses, one of which is pain in the incision area that occurs due to tissue damage in the abdominal wall and uterus (Tahapar, 2022). Pain is an unpleasant experience, both sensory and emotional, related to the potential or presence of damage to body tissue. Pain also functions as a protective mechanism of the body that occurs when tissue is damaged, thus encouraging individuals to react to reduce or eliminate the feeling. Pain experienced by mothers after a Caesarean section is acute and can interfere with activities. Therefore, pain needs to be addressed immediately because it can inhibit physical mobilization, disrupt *attachment bonding* , limit *activities of daily living* (ADL), hinder the implementation of Early Initiation of Breastfeeding (IMD), reduce infant nutritional intake, and impact sleep quality, stress, and anxiety (Wahyu & Lina, 2019). Thus, appropriate nursing management is needed in pain management. (Faulina & Suparmi, 2024).

One non-pharmacological method for reducing post-operative pain is early mobilization. This procedure aims to prevent complications, reduce the risk of depression, reduce pain, accelerate recovery, and restore optimal body function. Early mobilization effectively reduces pain by diverting attention from the wound area, suppressing the activity of inflammatory mediators, and inhibiting the transmission of pain impulses to the central nervous system (sari 2018., n.d.). Early mobilization has been shown to reduce pain intensity in post-caesarean section patients, from moderate to mild. This intervention is effective as a non-pharmacological method and can be used as a reference in nursing practice and for further research.

The aim of this research is to hopefully provide benefits to the community, especially post-Cesarean section mothers, in increasing their knowledge and ability to carry out pain management independently through non-pharmacological interventions, so that the post-partum recovery process can take place optimally.

2. Materials And Metods

This Final Scientific Paper uses a descriptive method with a case study approach that aims to systematically describe the implementation of nursing care for post-Cesarean section mothers with acute pain problems through early mobilization techniques. The case study approach was chosen to obtain an in-depth picture of the patient's response to the nursing interventions provided and to analyze the effectiveness of early mobilization in reducing pain intensity.

The subject in this case study was a post-cesarean section patient treated in the Al-Mushawwir Ward of Sitti Khadijah Makassar Hospital for acute pain. Subject selection was based on the suitability of the clinical condition to the study focus, namely a patient in the post-cesarean section period experiencing pain in the abdominal incision area and meeting the criteria for early mobilization.

Data collection was conducted through a nursing process that included assessment, establishing a nursing diagnosis, planning, implementation, and evaluation. Data collection techniques included interviews to obtain subjective data related to patient complaints and perceptions of pain, observation to monitor general conditions and responses during mobilization, a head-to-toe physical examination to obtain objective data, and medical documentation such as laboratory results and therapies provided. The instruments used in this case study included a nursing assessment format, vital signs observation sheets, and a *Numeric Rating Scale* (NRS) to measure the level of pain experienced by the patient using numbers as a representation of pain intensity. The assessment criteria were 0 meaning no pain, 1–3 mild pain, 4–6 moderate pain, and 7–10 severe pain to measure pain intensity before and after the intervention. The patient's treatment period was 3 days. The main intervention provided was gradual early mobilization, starting with extremity movement exercises, changing the right and left side positions, sitting on the edge of the bed, and standing and walking according to the patient's tolerance.

The results of the implementation of nursing care are presented narratively by comparing conditions before and after the intervention, so that changes in pain levels and improvements in patient mobilization abilities can be analyzed as indicators of the success of nursing actions.

3. Result

This study was conducted by implementing early mobilization for three days in post-cesarean section patients. After implementation, the following results were obtained:

Table 1. Results of the Pain Intensity Assessment on the First Day Before Implementation Early Mobilization

No.	Date	Respondents	NRS Scale
1.	Thursday, January 8, 2026	NY.R	Scale 7

Table 1 Based on the results of observations on the first day, it was found that the respondent had a pain intensity with an NRS scale of 7 which is included in the severe pain category. After early mobilization in the initial stage in the form of assisted passive-active ROM exercises and deep breathing techniques, the patient appeared more relaxed even though the reduction in pain was not yet significant.

Table 2. Results of Pain Intensity Assessment on the Second Day After Implementation of Early Mobilization

No.	Date	Respondents	NRS Scale
1.	Friday, January 9, 2026	NY.R	Scale 6

Table 2: Based on observations on the second day, the patient's pain intensity decreased to an NRS score of 6 (moderate pain). The patient was able to perform right-left tilts and sit on the edge of the bed with minimal assistance. Muscle strength increased to 4+/5, and activity tolerance showed improvement.

Table 3. Results of Pain Intensity Assessment on the Third Day After Implementation of Early Mobilization

No.	Date	Respondents	Pain scale
1.	Saturday, January 9, 2026	NY.R	Scale 4

Table 3: Based on observations on the third day, the patient's pain intensity decreased to a 4 on the NRS scale, which is categorized as mild to moderate pain. The patient was able to sit and stand slowly without assistance. Muscle strength increased to 5/5, sleep quality improved, and the patient was able to perform light activities independently.

Table 4. Results of Pain Intensity Development Before and After Implementation of Early Mobilization

No.	Respondents	Before	After	Information
1.	NY.R	Scale 7	Scale 4	Decline scale 3 levels of pain

Table 4 Based on the observation results, it was found that after implementing early mobilization for three days, there was a decrease in pain intensity of 3 levels from a scale of 7 to 4. This shows that early mobilization is effective in reducing pain intensity in post-Caesarean section patients.

4. Discussion

Based on the research results, it shows Three days of early mobilization gradually reduced pain intensity from 7/10 to 4/10, while increasing muscle strength from 4/5 to 5/5 and improving independent mobility. These findings demonstrate that early mobilization is effective in supporting recovery in post-cesarean section patients.

The results of this study are in line with research conducted (Kasmiati et al, 2021) conducted by Sembiring on the title " implementation of early mobilization to reduce pain in post-cesarean section patients at Roemani Muhammadiyah Hospital, Semarang" This case study used a descriptive method for data collection. Data were obtained through interviews and observations, using a pain scale observation sheet and a Standard Operating Procedure (SOP) for early mobilization. The results of implementing early mobilization for three days showed a decrease in pain in post-cesarean section patients, from 0.5 to 0.7. scale 5 to scale 2. Based on these results, it can be concluded that early mobilization is effective in reducing pain levels in post-Caesarean section patients.

A Caesarean section is a surgical procedure to deliver a fetus through an incision in the abdominal wall and uterus. This artificial birth procedure allows the baby to be born through the abdomen by making an incision in the abdominal wall and uterus so that the baby is born intact and healthy (Oliza Uzlifatul et al., 2024). Physiologically, post-Caesarean section pain occurs due to damage to the incision tissue which triggers an inflammatory response and the release of chemical mediators such as prostaglandins and histamine, thereby increasing the sensitivity of pain receptors Perry & Potter, (2018). Early mobilization helps improve blood circulation, accelerate the distribution of oxygen and nutrients to the wound tissue, and reduce the accumulation of inflammatory substances. Light physical activity also stimulates the release of endorphins as the body's natural analgesics which play a role in reducing pain perception Santoso et al., (2022).

On the first day, despite mobilization in the form of assisted passive-active ROM exercises and deep breathing relaxation techniques, the pain scale did not show a significant decrease. This aligns with the theory that responses to non-pharmacological interventions require a gradual adaptation process. A more significant reduction in pain occurred on the second and third days when mobilization was increased to include right-left tilts, sitting on the edge of the bed, and slowly standing.

The results of Metasari and Sianipar's (2018) study showed that after early mobilization in post-CS patients, the majority of respondents experienced a decrease in pain to mild pain with a scale of 3, as many as 18 respondents (45%) of the total sample (Sugiyanto et al., 2023). This is in line with research conducted by (Taroenadibrata, 2026) where respondents also experienced a decrease in the pain scale from 6 (moderate pain) to 2 (mild pain) after early mobilization intervention was given. Furthermore, an evaluation after 3 x 24 hours showed that the patient's mobility began to improve, the patient was able to sit on the edge of the bed and stand with assistance, and pain decreased to a scale of 3–4, although the patient still required assistance to walk longer distances so that further mobilization exercises were still needed.

Based on the analysis results, early mobilization in post-Cesarean section patients is an important intervention in the post-operative recovery process (Asmaul Husna et al., 2025) because it plays a role in accelerating wound healing. This is supported by Saleh's (2020) research which shows a significant relationship between early mobilization and the wound healing process, with several factors that need to be considered such as time, physical examination, wound condition, and signs of infection to increase healing effectiveness. Research by Sumaryati et al. (2018) also found that early mobilization is associated with increased maternal independence, where the majority of respondents (26 of 33 mothers) have high independence after early mobilization. The implementation of early mobilization is carried out in stages according to SOP. If early mobilization is carried out too late, there can be a decrease in vascularization which reduces blood supply, increases pain, and slows wound healing after Cesarean section (Herianti & Rohmah, 2022).

These findings are consistent with research by Sugiyanto et al. (2023) which showed a decrease in pain scale after early mobilization for three days. Research by

Agustiani et al. (2023) also reported a decrease in the average pain scale from 6 to 4 after early mobilization intervention. Furthermore, research by Kulsum and Shifa (2025) found a significant effect of early mobilization using the ERACS method on reducing pain levels in post-Cesarean section patients ($p < 0.05$). Similar results were also reported by Herianti and Rohmah (2022) who stated a significant relationship between early mobilization and pain scale reduction ($p = 0.000$).

In addition to reducing pain, early mobilization also improves muscle strength and activity tolerance. An increase in muscle strength from 4/5 to 5/5 indicates that early mobilization prevents bedrest-related weakness and accelerates musculoskeletal function recovery. This is supported by research by Isnaini et al. (2023), which states that early mobilization plays a role in increasing muscle tone and improving the cardiovascular and respiratory systems.

The success of the intervention in this case was also supported by the collaboration between analgesic administration and patient education regarding the importance of early mobilization. The combination of pharmacological and nonpharmacological management has been shown to be more effective than a single approach in managing postoperative pain (Nilam, 2024). Adequate education enhances active patient participation in the recovery process, resulting in optimal clinical outcomes.

Overall, this discussion confirms that early mobilization is an effective, safe, and evidence-based nursing intervention for reducing pain and improving mobility in post-cesarean section patients. Its gradual implementation, integrated with pharmacological therapy, is highly recommended in maternity nursing practice to improve the quality of care and patient clinical outcomes.

5. Conclusion And Suggestions

The implementation of early mobilization in post-Cesarean section patients for three days has been proven to reduce pain intensity gradually from a scale of 7/10 to 4/10. In addition, there was an increase in muscle strength from 4/5 to 5/5, increased activity tolerance, and more independent mobilization ability. Early mobilization carried out gradually, accompanied by relaxation techniques and collaboration in providing analgesics, has been shown to help accelerate patient functional recovery. Thus, early mobilization is an effective non-pharmacological nursing intervention in acute pain management in post-Cesarean section patients. Based on these findings, it is recommended for nurses to implement early mobilization in a gradual and structured manner as part of the standard of nursing care in post-Cesarean section patients, and combined with pharmacological pain management for optimal results.

6. Thank You Note

The author would like to express his gratitude to the Director and all staff of the Al-Mushawwir Room of Sitti Khadijah Hospital, Makassar, who have given permission and the opportunity to carry out this case study. He also expressed his gratitude to the Pelamonia Makassar Institute of Health Sciences for the academic support provided during the process of preparing this scientific work. The author would like to express his special appreciation and gratitude to Ns. Dwi Esti Handayani, S.Kep., M.Kep as his supervisor who has provided direction, guidance, and

constructive input so that this manuscript can be completed well. Hopefully, the results of this scientific work can provide benefits for the development of maternity nursing practice, especially in the application of early mobilization in post-Cesarean Section patients.

Author Contributions: Conceptualization: R.W. and D.E.H.; Methodology: R.W. and S.N, G.M; Software: R.W.; Validation: R.W., D.E.H. and S.N, G.M; Formal analysis: R.W. and S.N, G.M; Investigation: R.W. and S.N, G.M; Resources: R.W. and S.N, G.M; Data curation: R.W. and S.N, G.M; Writing—original draft preparation: R.W.; Writing—review and editing: R.W. and S.N, G.M; Visualization: R.W.; Supervision: D.E.H.; Project administration: R.W.; Funding acquisition: R.W.

Funding: This research received no external funding

Data Availability Statement: The dataset used in this study can be accessed publicly at the link

Conflicts of Interest: The authors declare no conflict of interest

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