



Implementation of Early Mobilization to Reduce Pain Intensity Post-Cesarean Section at Labuang Baji Regional General Hospital

Erna Kasim¹, Fitri¹, Magdalena Limbong¹, Ekayanti Hafidah Ahmad¹, Andi Tenriola Fitri Kessi¹

¹Department of Nursing, STIK Makassar, Indonesia

Correspondence author: Fitri

Email: fitriifitriiii@gmail.com

Address: Jl. Maccini Raya No.197, Sinrijala, Kec. Panakkukang, Kota Makassar, Sulawesi Selatan 90232 Telp. 0895346190151

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ABSTRACT

Introduction: Cesarean section (Sectio Caesarea) is a surgical procedure involving the removal of the fetus through an incision in the abdominal and uterine walls.

Objective: To implement early mobilization as a strategy to reduce pain intensity following a cesarean section at Labuang Baji Regional General Hospital, Makassar.

Method: A descriptive case study was conducted involving two respondents.

Results: On the third day post-surgery, both respondents initially experienced moderate pain intensity. After the implementation of early mobilization, pain intensity decreased to mild levels.

Conclusion: The case study concluded that early mobilization effectively reduces pain intensity in post-cesarean section patients.

Keywords: cesarean section, early mobilization, pain intensity

Introduction

There are several ways to ensure the safety of a mother and her baby during childbirth, including natural delivery, assisted delivery, or Cesarean section. A Cesarean section is a surgical procedure that involves opening the abdominal and uterine walls to deliver the fetus (Santiasari et al., 2021).

Post-operative pain is common after a Cesarean section due to the trauma inflicted on the abdominal wall and uterine tissue. This pain restricts the patient's movement, which can lead to complications such as reduced blood circulation, oxygen deprivation to cells, and the release of chemical mediators, all of which contribute to an increased perception of pain (Syurrahmi et al., 2023).

Pain intensity following a Cesarean section can range from mild to severe and typically lasts between 24 to 48 hours. However, it may persist if not managed effectively (Agustin, Koeryaman, & DA, 2020). Proper post-cesarean care is essential to prevent complications and promote recovery. Pain management can be achieved through pharmacological and non-pharmacological approaches, or a combination of both (Santoso et al., 2022). Early mobilization, a non-pharmacological intervention, has been shown to help alleviate pain (Sugiyanto et al., 2023).

Early mobilization is crucial for accelerating recovery and preventing complications after a Cesarean section (Arif et al., 2021). It allows postpartum mothers to recover more effectively, helps them cope with pain, and improves their overall quality of life. This intervention also facilitates activities such as breastfeeding and caring for their newborns (Kartilah et al., 2022).

In 2020, the Ministry of Health of the Republic of Indonesia reported that 927,000 out of 4,039,000 births in the country were by Cesarean section, accounting for approximately 30-80% of all births (Kemenkes RI, 2020). In South Sulawesi, specific data on Cesarean section rates is unavailable, though birth statistics indicate that urban areas have a higher Cesarean section rate (21.21%) compared to rural areas (16.23%) (BPS, 2020).

At Labuang Baji Regional Hospital in Makassar, four Cesarean section cases were observed in one month, including two mothers with preeclampsia or eclampsia and one with a narrow pelvis and placenta previa (Ikrimah Syam, 2021). Research by Santoso et al. (2022) has shown that early mobilization can help reduce pain after a Cesarean section. Additionally, Kumalasari et al. (2023) found that combining early mobilization with pharmacological treatments significantly reduces pain intensity. By following established protocols, mothers can begin early mobilization with assistance shortly after their Cesarean section.

Objective

Identifying the provision of knowledge in teaching the implementation of sleep hygiene to improve sleep quality in adolescents.

Method

This study employs a descriptive case study methodology, focusing on the implementation of early mobilization to reduce pain intensity after a cesarean section. The research was conducted at the Labuang Baji Regional Public Hospital in Makassar from April 22 to April 24, 2024, over three consecutive days. Data were collected using interviews and observations. Interviews were conducted using an interview guide, while early mobilization implementation was observed with standard operating procedures (SOPs) as a reference. Pain intensity reduction was measured using the Numeric Rating Scale (NRS) observation sheet.

The analysis steps are as follows: the first step involves conducting interviews and recording data from the findings. In the second step, the field interview data are reviewed and rewritten into a comprehensive report. The third step involves manually evaluating the collected data, which is then presented in tables or narratives to understand how early mobilization reduces pain intensity post-cesarean. The final step is drawing conclusions based on the evaluated data.

Result

Table 1. Results of the Observation on the Implementation of Early Mobilization to Reduce Pain Intensity in Respondent I (Mrs. "S")

Date	Implementation	Pain Scale			
		Time	Pre test	Time	Post test
22 April 2024	Early Mobilization	08.00	(6)	08.15	(5)
23 April 2024	Early Mobilization	08.10	(5)	08.25	(4)
24 April 2024	Early Mobilization	08.15	(4)	08.30	(3)

Table 1 shows that on the first day, patient Ny "S" experienced moderate pain (6) before early mobilization was implemented. After early mobilization, the pain level for patient Ny "S" decreased to moderate pain (5). On the second day, before early mobilization was implemented, the pain level remained at moderate pain (5), and after early mobilization, the pain level decreased to moderate pain (4). On the third day, before early mobilization was implemented, the pain level was still at moderate pain (4), and after early mobilization, the pain level decreased to mild pain (3).

Tabel 2. Results of the Observation on the Implementation of Early Mobilization to Reduce Pain Intensity in Respondent II (Mrs. "W").

Day/Date	Implementation	Pain Scale			
		Time	Pre test	Time	Post test
22 April 2024	Early Mobilization	09.00	(6)	09.15	(5)
23 April 2024	Early Mobilization	09.05	(5)	09.20	(4)
24 April 2024	Early Mobilization	09.15	(4)	09.30	(1)

Table 2 shows that on the first day, client Ms. "W" experienced moderate pain (6) before the Early Mobilization Implementation was carried out. After the Early Mobilization Implementation, the pain level for client Ms. "W" decreased to moderate pain (4). On the second day, before the Early Mobilization Implementation, the pain level remained at moderate pain (4), and after the early mobilization, the client's pain level decreased to mild pain (3). On the third day, before the Early Mobilization Implementation, the pain level was still at mild pain (3), and after the early mobilization, the client's pain level decreased to mild pain (1).

Discussion

Based on the case study conducted with Ms. "S" and Ms. "W" regarding early mobilization to reduce pain intensity, performed over three consecutive days from April 22 to April 24, 2024, a gap was observed between both clients after the intervention. On the first day, Ms. "S" experienced moderate pain (6) before early mobilization, which decreased to moderate pain (5) after the procedure. Similarly, Ms. "W" experienced moderate pain (6) before early mobilization, with a decrease to moderate pain (5) after the procedure. This finding indicates that both clients showed a 1-point reduction in pain level due to their cooperation in the early mobilization process. This result is consistent with previous research (Santoso et al., 2022), which found that early mobilization can effectively reduce pain in post-cesarean patients.

On the second day, Ms. "S" reported moderate pain (5) before early mobilization, which decreased to moderate pain (4) after the procedure. Similarly, Ms. "W" reported moderate pain (5) before early mobilization, with a reduction to moderate pain (4) after the intervention. Both clients demonstrated a decrease in pain levels, which aligns with the gradual implementation of early mobilization procedures. This is supported by research by Berkanis et al. (2020), which highlighted the positive impact of early mobilization on pain reduction after cesarean surgery.

On the third day, Ms. "S" reported moderate pain (4) before early mobilization, which decreased to mild pain (3) after the procedure. Conversely, Ms. "W" reported moderate pain (4) before the intervention, with a significant reduction to mild pain (1) after early mobilization. A gap between the two clients was observed, as Ms. "W" performed early mobilization three times a day, while Ms. "S" performed it twice a day. This difference in frequency was due to Ms. "W's" higher motivation to engage in early mobilization. Research by Berkanis et al. (2020) supports the idea that effective early mobilization, accompanied by motivation and support, enhances pain tolerance and reduces the perception of pain. Thus, it can be concluded that early mobilization after cesarean surgery plays a significant role in reducing pain intensity.

Conclusion

Patients experiencing moderate pain after a cesarean section can alleviate their pain by implementing early mobilization, according to a case study involving Ms. "S" and Ms. "W," whose pain levels decreased to mild after engaging in early mobilization. It is hoped that patients undergoing cesarean surgery may alleviate pain by participating in early mobilization programs. Additionally, it is expected that nursing staff and nursing students can use this as a reference to enhance their understanding of how to implement early mobilization to reduce pain intensity after a cesarean section.

Conflict of interest

The researchers stated that there is no conflict of interest related to the implementation and publication of the results of this research. The entire research process, from planning, data collection, analysis, to report preparation, was carried out independently without any influence or pressure from any third party. A commitment to research ethics is upheld throughout the research process, ensuring transparency, accuracy and honesty in reporting results. Respondents' participation was voluntary with informed consent, and their confidentiality and privacy were maintained in accordance with applicable research ethics standards. With this statement, researchers hope that the research results can be trusted and used as a valid reference for the development of science and health practices related to ethnomedicine and reproductive health.

Authors' contribution

Each author makes an equal contribution to all parts of the research. All authors have reviewed and approved the final draft critically and are responsible for the index and similarity of the manuscript.

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