



## Application of Early Mobilization in Reducing Pain in Post Sectio Caesarea Patients in Flamboyant Room Prof. Dr. Margono Soekarjo Hospital

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### ABSTRACT

*Sectio Caesarea (SC) or caesarean section is a delivery with an incision procedure in the abdomen and uterus. Post-operative pain will be caused by a caesarean section. Post-operative pain can be reduced with early mobilization as a non-pharmacological technique. This case study aims to determine whether there is any effect of early mobilization in the reduction of the intensity of pain in patients' post-operation sectio caesarea in the Flamboyant Room of RSUD Prof. Dr. Margono Soekarjo. Qualitative research type with descriptive case study as the research method was used in this study. Total sampling technique with a sample of 1 patient, namely Mrs. I. The data collection method is by interviews and patient medical records. Early mobilization intervention was carried out with an administration time of 15 minutes for 3 days. The results of the case study show a very significant reduction in pain intensity after early mobilization intervention, namely from a scale of 5 to a scale of 3. Early mobilization is important because post-operative pain can be reduced by movement of the body's muscles.*

**Keywords:** *patients post sectio caesarea, early mobilization, pain intensity*

### 1. INTRODUCTION

Labor is a physiological event in which a mother naturally expels the fetus and placenta at term, which usually occurs between 37 and 42 weeks of pregnancy. There are two different methods of delivering a baby: vaginal delivery or natural childbirth, and cesarean delivery also known as Sectio Caesarea (SC) (Cunningham *et al.*, 2018).

When a pregnancy reaches its full term, between 37 and 42 weeks, labor is considered normal. It involves spontaneous expulsion of the fetus with the head facing backwards, and occurs within a period of 18 hours. This procedure should be performed without any

problems for the mother and fetus (Yulizawati *et al.*, 2019).

Caesarean section or Sectio Caesarea (SC), is a method of childbirth that involves an incision of the uterus and abdomen. It is one of the medical methods that has the potential to save the life of the mother and fetus. Caesarean section can be performed as an urgent procedure or as a planned procedure (Supami, 2020).

According to world data from the World Health Organization (WHO) in 2021 states that caesarean sections are becoming more common in developing countries. Worldwide caesarean section accounts for 10-15% of all births. The risk of maternal and infant mortality and

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disability increases if the number of indicators at caesarean section exceeds a predetermined limit. Based on 2021 data, there were a total of 373 million caesarean sections performed. America has the highest prevalence of Sectio Caesarean delivery, at 39.3%. Europe follows with 25.7%, and Asia with 23.1%. It is predicted that until 2030 this figure will continue to increase every year (WHO, 2021).

Based on data from Riskesdas in 2018, the proportion of deliveries in Indonesia using the Sectio Caesarea (SC) procedure was 17.6%. 23.2% of Indonesian women aged 10-54 years experienced pregnancy problems. The prevalence of indications for delivery by caesarean section (CS) was 23.2% and the indications were caused by various problems. Umbilical cord twisting (2.9% of cases), retensio placenta (0.8%), placenta previa (0.7%), hypertension (2.7% of cases), convulsions (0.2%), transverse fetal position (3.1% of cases), premature rupture of membranes (5.6% of cases), prolonged labor (4.3% of cases), and other variables (4.6%) were also present in this study (Kemenkes RI, 2018).

The incidence of caesarean section in Central Java increased from 2019 to 2023, reaching 17.1% of 9,291 deliveries. This data illustrates the increasing trend in the number of births performed by mothers who undergo caesarean section (Kementrian Kesehatan Republik Indonesia, 2019).

Medical or non-medical symptoms as a consideration for cesarean delivery. In addition, the effects of postoperative pain will be caused in cesarean delivery especially after the effects of anesthesia wear off. When pain receptors are released, it will cause pain due to tissue continuity being broken due to the incision process during surgery. The mother's activities will be disrupted when this pain appears (Metasari & Sianipar, 2018).

Pain is defined as a sensory and emotional experience that can make many people experience distress and difficulty, resulting from real or risky damaged tissue. This pain is subjective because individuals will respond differently to pain. Minimizing pain can be through pain reduction, namely the client's

comfort level can try to reduce pain (Puspita, 2021).

Non-pharmacological or pharmacological therapies can be applied in managing post-SC pain. Early mobilization is one of the non-pharmacological therapies. Early mobilization is an activity or positional movement that the mother does after several hours of delivering the baby by SC. Early mobilization also has the aim of minimizing pain, some complications do not occur, preventing depression, rapid recovery, and maximizing in restoring patient function (Subandi, 2017).

Mobilizing is very necessary because pain can be reduced and the mother will experience rapid healing so that she can return to normal activities. An important role in early mobilization so that pain is reduced is by minimizing transmission to the pain nerve that will go to the central nerve, the activity of chemical mediators will be reduced against the inflammatory process when there is an increase in pain response, and forgetting the patient's concentration on the location of pain due to surgery (Sari, 2018).

Wound healing after SC surgery is influenced by one factor, namely early mobilization. The purpose of performing early mobilization is so that pain can be reduced and the abdominal muscles can return so as not to experience stiffness so that the wound healing process can be affected. The importance of early mobilization to be applied is as an action to return to the next stage of mobilization which is carried out gradually. Good supervision, fast and precise in performing early mobilization so that joint mobility can be increased as well as increased metabolism and better blood circulation. The pain caused by cesarean section can also be reduced by applying early mobilization as a non-pharmacological therapy (Cahyani & Maryatun, 2023).

According to Safitri *et al.* (2024) who previously conducted a study stated that in postoperative SC patients at the University Hospital of North Sumatra Medan there was an effect of early mobilization intervention on pain assessment which decreased (Safitri *et al.*, 2024).

According to research by Roheman et al (2020), the results showed that after post-SC patients were given an intervention in the form of early mobilization, these patients experienced a decrease in the pain scale so that early mobilization had an effect on reducing pain (Roheman *et al.*, 2020).

This shows that to reduce post sectio caesarea pain, early mobilization needs to be done. For this reason, the researcher will conduct an early mobilization application for post sectio caesarea patients for 3 days in the Flamboyant Room of Prof. Dr. Margono Soekarjo Hospital.

Based on the explanation above, this study aims to determine the results of the application of early mobilization on the decrease in pain intensity in post sectio caesarea patients in Flamboyant Room of Prof. Dr. Margono Soekarjo Hospital.

## 2. METHODS

The type of research used in this study is qualitative research with descriptive case studies as a research method which means presenting problem solving with the nursing process. The sample was 1 patient, Mrs. I, who was selected using total sampling technique. The inclusion criteria are inpatients post sectio caesarea in Flamboyant Room Prof. Dr. Margono Soekarjo Hospital, patients who experience post sectio caesarea pain, and patients who are willing to become managed cases.

Data collection methods were interviews and patient medical records. The data collection process begins with an interview process with the patient and his family, then the researcher will observe, as well as conduct a physical examination, and also document nursing care from the assessment stage to the nursing evaluation. The instrument in this case study is an observation sheet for assessing the pain scale in post-SC patients using the numeric rating scale (NRS) as the assessment.

Early mobilization provided in this study as an intervention is carried out for 3 days with a delivery time of 15 minutes. Finally, an evaluation will be carried out to assess the patient's pain scale, namely before the provision

of intervention and after the provision of early mobilization intervention. Gradually this early mobilization will be carried out, starting from the first day to train the movement of the feet and hands, and train the position to tilt the body to the right and left sides. The second day is used to train the position of the body in a semi-fowler and also train the position to sit. The third day is for walking training.

## 3. RESULT AND DISCUSSION

The purpose of applying early mobilization is so that the intensity of pain in patient Mrs. I decrease. This research was conducted on April 2 - 4, 2024. In this study 1 patient was involved as a research subject who had been determined by the existing inclusion criteria. After mobilization is applied, the results are obtained:

**Table 1. Results of Pain Scale Assessment Before and After Giving Early Mobilization Application**

Respondents	Pain Scale Before Early Mobilization	Pain Scale After Early Mobilization
Ny. I	5	3

Table 1 shows a decrease in pain scale after early mobilization intervention. The pain scale was 5 before early mobilization and became 3 after early mobilization intervention. This shows that after early mobilization to post sectio caesarea patients, the intensity of pain from a moderate pain scale has decreased to a mild pain scale.

A very significant decrease in the pain scale occurred after the third early mobilization in the form of exercises for walking, namely with the results of a pain scale of 3 (moderate pain). This states that there is a change in the results of the application of early mobilization in reducing pain in post sectio caesarea patients in the Flamboyant Room of Prof. Dr. Margono Soekarjo Hospital.

The findings of this study corroborate the findings of Cahyani & Maryatun (2023), who found that early mobilization helps post-caesarean patients reduce severe pain. The first patient, Mrs. M., experienced a decrease from 6 to 3, while Mrs. E as the second patient also

decreased from 5 to 2 (Cahyani & Maryatun, 2023).

Rohmah's research (2022) shows that the contingency coefficient correlation test used as a statistical result state that the p value is  $0.000 < \alpha$  value of 0.05, which means that  $H_a$  is accepted while  $H_0$  is rejected. Rohmah's research (2022) agrees with this study, which found that there was a significant effect after early mobilization intervention was given and pain intensity decreased in patients after SC surgery (Herianti & Rohmah, 2022).

Impaired is one of the impacts that can be experienced by post-SC patients and the most common. Impaired here is a condition where the wound or surgical site will experience acute pain. The existence of functional limitation, fear of mobilization, and joint range of motion (LGS) is caused by impaired conditions. The existence of limited movement due to disability due to medical procedures and pain and the inability of patients to perform activities such as standing, sitting and walking are the result of a state of functional limitation (Santoso *et al.*, 2022).

Certain stimuli such as mental (psychological) or physical stimuli cause a condition of discomfort called pain. Everyone's response to pain is not the same because pain can be subjective. Recognition from people who feel pain can be used as a measuring tool for pain assessment so that pain cannot be measured in an objective way. Numeric rating scale (NRS) as one of the pain assessments that can be used (Nurhayati *et al.*, 2021).

The application of early mobilization is very easy to do to patients. It can be said that way because in its application no costs or tools are needed and can be done by anyone other than a certified nurse. The application of early mobilization is in the form of training joint movements, walking, and body alignment and abilities that are adjusted to the tolerance of activities in post SC patients. Performing early mobilization begins in the recovery room. The initial movements performed are passive movements and changing the position of tilting to the right or left. The purpose of this mobilization is to keep the patient concentrated

and his mind can focus on every movement applied (Sunengsih *et al.*, 2022)..

Early mobilization is done as one of the ways from health workers to make postoperative patients do activities independently. Early mobilization is in the form of movement of postoperative SC patients in bed after several hours of surgery. Early mobilization is very important to do because postoperative pain can be reduced by the movement of body muscles. In addition, early mobilization can also help wounds heal faster, swelling can be reduced, bleeding due to early mobilization can be prevented when uterine contractions are good, improve blood circulation, and improve uterine involution (Sylvia & Rasyada, 2023).

According to Herianti & Rohmah (2022) who had previously conducted research stated that a decrease in the postoperative pain scale could occur by carrying out one of the powerful interventions in the form of early mobilization. Gradually carrying out early mobilization management in post SC patients will quickly process the decrease in pain scale. If you do not apply early mobilization, it will take longer to reduce the pain scale. Therefore, in order for the pain scale in patients to decrease, a very important role is needed from health workers in assisting and controlling patients when applying early mobilization (Herianti & Rohmah, 2022).

Some factors that can affect pain include age, fatigue, environmental and family support, previous experience of pain, the meaning of pain for the individual, and the individual's own pain tolerance. The most prominent factor in decreasing the pain scale is the age factor. This is because the increasing age of each person will also increase the interpretation of pain that a person feels and how to deal with the pain he experiences (Herianti & Rohmah, 2022).

The final evaluation was carried out after performing early mobilization actions for 3 days and showed that there was a decrease in the patient's pain scale. A further therapeutic benefit of early mobilization is a decrease in nerve conduction delays, resulting in decreased pain perception, inflammatory response, blood flow, and edema in the tissue. Early



mobilization indirectly reduces activation and sensitivity of pain nerve terminals by reducing inflammatory mediators, resulting in a decrease in perceived pain (Sylvia & Rasyada, 2023).

This study also still has many limitations and shortcomings. This limitation is that the respondent only consists of one patient so that this case study only applies to certain cases and only focuses on variables. In addition, there is also no comparison group and respondent characteristics that can make limitations in evaluating the significance of the intervention results.

## CONCLUSION

The results of the case study conducted on patient Mrs. I showed that the intensity of pain decreased significantly after the intervention of early mobilization, namely from scale 5, namely moderate pain to scale 3, namely mild pain. This shows that there is a change in the results of the application of early mobilization in reducing pain in post sectio caesarea patients in the Flamboyant Room of Prof. Dr. Margono Soekarjo Hospital. Early mobilization is very important to do because the pain caused by postoperative can be reduced by the movement of body muscles.

## ADVISE

Hospitals should consistently implement strategies to reduce pain in patients undergoing post-cesarean section surgery. One effective approach is to establish a standard operating procedure for early mobilization, which can be a reference for reducing pain intensity, especially when providing nursing care to post-cesarean section patients. For future researchers, it is recommended that other studies be conducted on other interventions that can cause pain intensity in post sectio caesarean patients to decrease.

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