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APPLICATION OF FOOZMA THERAPY (FOOT MASSAGE USING OLIVE OIL) TO REDUCE PAIN IN MOTHERS AFTER CESAREAN SECTION

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ABSTRACT
Post cesarean section procedures can cause pain sensations. Pain management involves a combination of self-care interventions and non-pharmacological foot massage therapy, which is safe and easy to administer. To improve circulation, reduce pain, relax muscles, and provide comfort to the patient. Foot massage therapy includes techniques such as effleurage (stroking), petrissage (kneading), tapotement (tapping), friction (rubbing), and vibration (vibrating). In the case study of foot massage for post-cesarean section mothers, data was collected through direct observation and measurement of pain intensity using a Numeric Rating Scale (NRS) questionnaire. The assessment was conducted through interviews and observation of the patient's condition before and after foot massage therapy. Data analysis was performed descriptively by comparing pain scores before and after foot massage intervention to see changes in pain intensity experienced by patients. The results of the foot massage on the respondents over two consecutive days showed a decrease in pain levels from a score of 6 (moderate pain) to a score of 2 (mild pain). The application of foot massage therapy can help reduce pain experienced by post-cesarean section mothers.

Keywords: foot massage; pain scale; post Sectio caesarea

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INTRODUCTION

Childbirth is a natural and physiological process that occurs when a woman gives birth to a fetus through the birth canal (Komarijah et al, 2023). Childbirth by cesarean section means that the fetus, placenta, and amniotic sac are delivered through an incision made in the abdomen and uterus using surgical techniques (Siagian et al, 2023). There are several advantages to performing a cesarean section, such as rapid delivery of the fetus, avoidance of bladder injury, and reduced bleeding (Damayanti & Nurrohmah, 2023).

According to information from the World Health Organization (WHO) in 2018, the average cesarean section rate is between 5-15%. Data from the WHO Global Maternal and Perinatal Health Survey in 2011 showed that 46.1% of all births were performed via cesarean section. In statistics compiled by Peel and Chamberlain on 3,509 SC cases, the causes of cesarean section included pelvic disproportion (21%), fetal distress (14%), placenta previa (11%), fetal position abnormalities (10%), and preeclampsia and hypertension (7%). On the other hand, data from the Indonesian Ministry of Health in 2020 shows that the prevalence of cesarean sections in Indonesia reached 927,000 out of a total of 4,039,000 births. Thus, the proportion of cesarean section births in Indonesia ranges from 30% to 80% of all deliveries. The average rate of cesarean section births in Indonesia, especially among women aged 10-54 years, reached 17.6%. The highest rate was in DKI Jakarta with 31.1%, while the lowest rate was in Papua with 6.7%. Meanwhile, the proportion of cesarean section births in Central Java reached 17.1%. This data shows that the use of cesarean sections is increasing among mothers giving birth. (Ministry Of Health, 2018)

Sectio caesarea delivery data at PKU Aisyiyah Boyolali Hospital during the last month in the

Delivery Room Installation was approximately 20 patients. Sectio caesarea delivery has an impact on mothers and babies (Zuleikha et al, 2022). Post-cesarean section mothers will experience pain. The pain does not appear immediately after the sectio caesarea delivery is complete, but usually appears 4-6 hours after the delivery is complete. This is due to the effects of anesthesia administered during delivery. (Pipih, 2021). For mothers who have undergone a cesarean section and experience pain, non-pharmacological measures such as foot massage therapy can be performed. (Fauziah et al, 2024). Foot massage therapy involves applying pressure and massaging the feet to stimulate energy flow through the foot reflex points. This massage technique can relieve pain in postpartum patients. (Ismiati & Rejeki, 2023)

Foot massage therapy consists of effleurage (stroking), petrissage (kneading), tapotement (tapping), friction (rubbing), and vibration techniques that have the effect of reducing pain because the massage provides a stimulus that reaches the brain faster than the sensation of pain. (Raharja & Sulastri, 2025). In addition, foot massage can improve blood circulation, reduce pain or soreness, and relax the muscles in patients. (Mahardika & Sudaryanto, 2024)

Foot massage techniques are most effective when performed once a day for 20 minutes, with 10 minutes spent on each extremity (Sindi & Syahruramdhani, 2023). Foot massage therapy using olive oil (Nimsi et al, 2025). Olive oil is a natural oil extracted from olives and is easily available. It contains oleocanthal, which has similar benefits to ibuprofen, namely reducing swelling and pain. (Nurmadina et al, 2025)

This study is in line with (Masadah, Cembun, & Sulaeman, 2020) In his research, there was an effect of foot massage therapy on the pain scale of post-cesarean section mothers in the maternity ward of the Mataram Regional General Hospital, showing that before foot massage therapy was performed, the pain of post-cesarean section mothers was classified as moderate pain (83%) and severe pain (17%). After receiving foot massage therapy, 52% experienced moderate pain, 48% experienced mild pain, and none experienced severe pain. Based on the above data, the researcher aims to conduct research on the application of foot massage therapy to reduce pain in patients after cesarean section at PKU Aisyiyah Hospital in Boyolali.

METHOD

The method used was a case study with descriptive observation using a nursing process approach with the application of foot massage on post- mothers to reduce pain levels. (Qasanah et al, 2025). This case study used subjects who were post cesarean section patients in the Mina Room of PKU Aisyiyah Hospital in Boyolali. The researcher used therapeutic communication in conducting interviews and nursing assessments of patients (Arda, 2019). The research subject in this case study consisted of one postpartum mother, and the researcher personally provided the foot massage intervention. The entire process was observed and analyzed in depth based on predetermined criteria. In this study, the inclusion criteria determined by the researcher were postpartum mothers who had undergone a sectio caesarea on the first or second day after delivery, those who received spinal anesthesia and were fully conscious, and mothers who were administered tranexamic acid and ketorolac intravenous analgesics six hours after the procedure (Sari & Maryatun, 2024). Meanwhile, the exclusion criteria in this case study included postpartum mothers with comorbidities or conditions that contraindicate foot massage, those with intravenous catheters inserted in their feet, and mothers who received Durogesic analgesics (Restinah et al, 2024)

The application of foot massage to reduce pain intensity was performed on one patient who had undergone a cesarean section in the Mina Room at PKU Aisyiyah Hospital in Boyolali. The first assessment was conducted on Wednesday, June 25, 2025, on Mrs. A, aged 31 years old, medical record number 323xxx, residing in Boyolali, with a medical diagnosis of post-cesarean section with severe preeclampsia on the first day of G2P2A0. Mrs. A's main complaint was pain after a sectio caserea. Mrs. A said the pain increased when she moved, felt like stabbing, and was felt in the surgical incision area. Mrs. A said the pain level was 6 and the pain came and went (Santoso, Firdaus, & Mumpuni, 2022). The tools and materials used in this study were pain assessment using the Numeric Rating Scale (NRS), SOP foot massage technique, olive oil, and observation sheets to record pain measurement results. Data collection was conducted through interviews/anamnesis, observation, and foot massage application (Wulandari & Oktaviani, 2020).

RESULT

The results of the first day of research on June 25, 2025, obtained from Mrs. A, are presented in the following table:

Table 1.
Post Sectio Caesarea Pain Scale for Mrs. A Before Foot Massage

Before	Pain Scale	Description
Mrs. A	6	Moderate Pain

Table.1 shows that before the foot massage was performed, the respondents had a pain scale of 6 or moderate pain.

Table 2.
Post Sectio Caesarea Pain Scale for Mrs. A After Foot Massage

After	Pain Scale	Description
Mrs. A	4	Moderate Pain

Table.2 shows that before the foot massage was performed, the respondents had a pain scale of 4 or moderate pain.

Table 3.
Post Sectio Caesarea Pain Scale for Mrs. A Before Foot Massage

Before	Pain Scale	Description
Mrs. A	4	Moderate Pain

Table. 3 shows that before the foot massage was performed, the respondents had a pain scale of 4 or moderate pain.

Table 4.
Post Sectio Caesarea Pain Scale for Mrs. A After Foot Massage

After	Pain Scale	Description
Mrs. A	2	Mild Pain

Table.2 shows that before the foot massage was performed, the respondents had a pain scale of 2 or mild pain.

Table 5.
Development of Pain Scale After Sectio Caesarea for 2 days in Mrs. A before and after Foot Massage

Day	Foot Massage Therapy Time	Mrs .A	
		Before	After
First Day	June 25, 2025 5:00 p.m.	6 P : Pain when moving Q : Stabbing pain R : Post cesarean section wound S : 6 T :Intermitten pain, ± 5-7 minutes	4 P : Pain when moving Q : Stabbing pain R : Post cesarean section wound S : 4 T : Intermitten pain, ± 5-7 minutes
Second day	June 26, 2025 8:00 a.m.	4 P: Pain when tilting right and left Q: Stabbing pain R: Part of post cesarean section wound S: 4 T: Intermittent pain, ± 10 minutes	2 P: Pain when tilting right and left Q: Stabbing pain R: Part of post cesarean section wound S: 4 T: Intermittent pain, ± 10 minutes

Based on Table 5, which shows developments on June 25, 2025, at 5:00 p.m, the pain scale for post cesarean section patients six hours after leaving the operating room, Mrs. A experienced pain with a scale of 6 (moderate pain) and after a foot massage, the pain decreased to a pain scale of 4 (moderate pain). On the first day of implementation, Mrs. A had already received advice from the doctor to perform early mobility by tilting to the right and left to accelerate healing. On the second day, June 26, 2025, at 8:00 a.m, fifteen hours after the cesarean section, Mrs. A experienced pain with a scale of 4 (moderate pain), and after a foot massage, the pain decreased to a scale of 2 (mild pain).

DISCUSSION

The results of the study conducted on respondents showed a decrease in pain from moderate to mild, where therapy was performed 6 hours after cesarean section and on the first day after cesarean section (Uzlifatul et al, 2025). Therapy was performed for 2 consecutive days. The respondent experienced a pain level of 6 (moderate pain). At 6 hours post cesarean section, Mrs. A said she was still afraid to move to the right and left sides, felt pain in the lower abdomen where the cesarean section scar was, and felt a stabbing pain that came and went. After receiving foot massage therapy, the pain level decreased to 4 (moderate pain). Then, on the first day post cesarean section on June 26, 2025, Mrs. A said she still experienced pain with a scale of 4 (moderate pain). Mrs. A was able to turn to the right and left, had learned to sit slowly, and was then given foot massage therapy for 20 minutes, resulting in the pain she felt becoming a scale of 2 (mild pain).

This is consistent with research conducted by (Puji Lestari, Sari, & Fitri, 2023), which states that post-operative mothers experience pain at the surgical site, the pain increases with movement, feels throbbing, and upon inspection, the patient appears to grimace when moving and is alert. Pain is a condition that can cause discomfort, and this discomfort can be caused by damage to sensory nerves or initiated by T-cell activity to the cerebral cortex, leading to the perception of pain (Jamal & Andika, 2022).

CONCLUSION

Based on the results of research on Mrs. A regarding the Application of Foot Massage in Reducing Postoperative Pain after Cesarean Section at PKU Aisyiyah Hospital in Boyolali, it can be concluded that non-pharmacological therapy, namely foot massage, has a reducing effect on pain levels as seen from the developments during the therapy given over two consecutive days.

Based on the results of this case study, it can be concluded that the pain scale of patients decreased after receiving foot massage therapy. There is a significant effect of foot massage therapy on reducing the pain scale of post cesarean section patients. Foot massage therapy can provide an effect in reducing pain because the massage provided generates stimuli that reach the brain faster than the pain felt, thereby producing serotonin and dopamine (Reda Mata & Kartini , 2020). Therefore, foot massage therapy is an effective way to control pain and anxiety in post-cesarean section patients because it is easy to perform, does not require much cost, and the equipment is easily obtainable.

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