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## Comprehensive Obstetric Clinic Practice: Practice Footbath Treatment for Post Sectio Caesarea Pain and Blood Pressure in Srikandi Room Suradadi Hospital Tegal Regency

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### ABSTRACT

Background: Childbirth can go smoothly normal or abnormal birth with procedures such as cesarean section. Side effects that occur after undergoing surgery are painful reactions felt by the patient, often causing the patient to get sick. Common treatments for pain relief after sectio caesarean section with pharmacological and non-pharmacological treatments. Objective: Conducting Holistic Midwifery Care for Postpartum Sectio Caesarea Mothers Based on Holistic Care, namely Warm Water Foot Soak. Method: Descriptive research using the case study method. Results: The level of pain before the application of footbath treatment in both respondents was classified as a controlled weight category. Meanwhile, the level of pain after the application of foot bath therapy was carried out, the level of pain in both respondents was classified as moderate anxiety. Changes in blood pressure after soaking the feet with warm water in post-sectio caesarean (SC) mothers are related to the relaxing effect caused by the therapy. Where warm water causes the blood vessels in the legs to dilate (vasodilation). It helps to increase blood flow to the lower extremities, which can reduce peripheral resistance and lower blood pressure. Discussion: The foot bath therapy method is a non-pharmacological method. An individual's perception of pain is influenced by several factors, including past experiences and sensitivity to pain. Warm water helps improve blood circulation, which can promote the efficient return of venous blood to the heart. It can reduce the load on the heart and help in lowering blood pressure.

**Keywords:** Footbath, Pain, Blood Pressure.

### Introduction

Evidence-based practice is the use of the best and most recent evidence in a thorough, explicit and thoughtful manner in making decisions about individual patient care. The practice of evidence-based medicine means integrating an individual's clinical expertise with the best external clinical evidence available from systematic research. Evidence Based Midwifery or better known as EBM is the best cutting-edge use that exists earnestly, explicitly and wisely for decision-making in the treatment of

individual patients (Sackett et al, 1997).  
Evidenced Based

Midwifery (EBM) is very important in the world of midwifery because with EBM, it can prevent actions that are unnecessary/not useful and even detrimental to patients, especially in the delivery process which is expected to run smoothly and safely so that it can reduce maternal mortality and infant mortality rates.

Childbirth is something that pregnant women look forward to. Childbirth can go smoothly, normal or abnormal births with procedures such as cesarean section. A Sectio



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caesarean section is a procedure for giving birth with assistance if not possible vaginally. This impossibility is usually prescribed by doctors, but with the era of modernization, sectio caesarean section is actually often a recommended alternative without medical indications such as long labor, fetal emergency, abnormal position, and so on (Aini, 2015).

The postpartum condition is a period that begins after 2 hours postpartum and ends when the reproductive organs return to their pre-pregnancy state, usually lasting for 42 days but physiologically and psychologically will heal within 3 months (Nurjannah et al., 2020). Postpartum patients with a caesarean section have different care needs for vaginal postpartum patients. The difference in the need for care for patients who give birth normally with cesarean section is because the incision is caused by surgery. The difference in the need for postpartum patient care with cesarean section is because the incision is caused by surgery that results in an injury to the abdomen. Sectio caesarean delivery (SC) is an incision in the abdominal wall to remove the fetus and placenta intact. Sectio caesarea is an artificial delivery that is carried out by tapping the abdominal wall and uterine wall, but the uterus must be intact and the fetus must weigh more than 500 grams (Dellia Destya Eka Suciawati and Nuryani, 2021).

According to data from the World Health Organization in 2021, there has been an increase in the presentation of cesarean sections around the world, in 1990 there was an increase of 7% and in 2021 it increased by 21% with sectio caesarean sections in East Asia (63%), Latin America and the Caribbean (54%), West Asia (50%), North Africa (48%), Southern Europe (47%), Australia and New Zealand (45%), (WHO, 2021). According to RISKESDAS in 2018, there were around 4.8 million deliveries with 19 percent of them assisted by cesarean section in Indonesia. The number of Sectio Caesarean Deliveries in the Srikandi Room of Suradadi Hospital itself based on medical record data is

328 mothers in 2023, and in 2024 until July it will be 210 mothers.

Side effects that occur after undergoing surgery are painful reactions felt by the patient, often causing the patient to get sick. The general treatment for pain relief after a cesarean section is with pharmacological and non-pharmacological care. pharmacological pain management. The use of analgesics is divided into three categories, namely: (1) non-opioids, including acetaminophen and nonsteroidal anti-inflammatory drugs (NSAIDs); (2) opioids (commonly known as drugs); and (3) supplements/coanalgesics (servers). Non-pharmacological treatment is currently a new trend and an alternative method for pain relief in mothers recovering from a cesarean section (Kozier and Snyder 2020).

Each individual feels a different scale of pain differently. Individual differences in pain perception and response, as well as many causes of pain, create complex situations for nurses when planning pain relief and comfort. There are alternative methods such as non-pharmacological treatment for post-sectio caesarea recovery in reducing pain (Kozier, Erb, Berman & Snyder 2020).

These non-pharmacological treatments include skin stimulation, massage, foot bath using warm water (footbath therapy), acupuncture, acupressure, distraction, relaxation and guided imagery. Foot bath therapy or warm foot bath is one of a series of postpartum care therapies that provide a relaxing effect, reduce body pain because it can help release endorphins in the brain which are natural pain relievers and help improve health and improve blood circulation. by dilating blood vessels. Thus it can receive the required amount of oxygen and will transport it to the tissue (Wulandari & Arifianto, 2016).

Physiologically, the body's response to heat causes blood vessels to dilate, facilitate blood flow, reduce muscle tension, and increase tissue metabolism (Santosa, 2015). A study by Chotimah et al. (2020), warm water foot bath



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therapy and massage are often used because of their ease of use and ease of practice. But its effectiveness may indicate its effectiveness in reducing pain levels after surgery. This is evidenced by his research on 30 respondents showing that the pre-action pain scale is moderate pain for 26 respondents (87.7%). Post-intervention pain scale, especially mild pain in 25 subjects (83.3%). The results of the statistical test showed a p-value of  $0.000 > 0.05$  which means that there is an effect of foot bath on pain after cesarean section.

Based on the description above related to acute pain experienced by postpartum mothers with sectio caesarean wounds, the researcher is interested in discussing "Comprehensive Obstetric Clinic Practice Footbath Treatment Against Post Sectio Caesarean Pain and Blood Pressure in the Srikandi Room of Suradadi Hospital, Tegal Regency".

## Research Method

The design of this study is a descriptive research using the case study method. The group was observed before the intervention, then again after the intervention. Pre-experiment research with the design of one group pretest and posttest. The instrument used by the researcher is a Numerical Rating Scale (NRS) observation sheet. The Pain Scale was measured using the Numerical Rating Scale (NRS) to determine the significance of anxiety reduction before and after giving footbath treatment.

## Results and Discussions

1. An overview of the level of Post SC Pain before and after the footbath treatment, the Pain category is divided into 5 categories, namely No Pain (if the score is 0), Mild pain (if the score is 1-3), Moderate pain (if the score is 4-6), Controlled severe pain (if the score is 9-7), Severe pain (if the score is 10) can be seen in the table below:

**Table 4.1 Frequency distribution of post SC pain levels before and after footbath treatment.**

Respondents	Footbath treatment			
	Pain Score		Pain Level	
	Pretest	Posttest	Pretest	Posttest
Mrs. M	8	4	Controlled Severe Pain	Keep
Mrs. E	8	5	Controlled Severe Pain	Keep

From table 4.1, it can be seen that from 2 respondents at the level of pain scale, the results show that from the two respondents at Suradadi Hospital, the level of pain after the application of foot bath therapy is carried out in the moderate category.

From table 4.1, it can be seen that from 2 respondents at the level of pain scale, the results show that from the two respondents at Suradadi Hospital, the level of pain after the application of foot bath therapy is carried out in the moderate category. Based on the results of the study, it was found that the level of pain in

post sc mothers after being given footbath treatment was obtained. Where the mother's pain scale is moderate. The foot bath therapy method is a non-pharmacological method, cheap and easy to do by patients and families at home. In addition, foot bath therapy with relaxation techniques is very effective in giving



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post-sectio caesarean section mothers who have limited mobility (Chotimah et al., 2020). The relaxation process is by distracting the pain by soaking in hot water on the legs (Oktarina et al., 2022). Pain is a defense mechanism for the body that arises when tissue is being damaged which causes the individual to react by moving pain stimuli (Handayani, 2018).

This is in line with the footbath activity, post-sectio caesarea mothers experiencing pain

showing changes in the feelings they experience. These changes are from facial expressions that begin to relax, aka not grimacing, a sign of normal impending vital signs (Kancha et al., 2023). In the mini research carried out, it was found that the results showed that the pain level of post section patients in the caesarean section from a controlled weight to moderate.

## 2. Comparison of the Two Respondents' Results

**Table 4.2 Comparison of the Two Respondents**

Respondents	Before	After	Difference
Mrs. M	8	4	4
Mrs. E	8	5	3

Based on table 4.2, the results of the comparison show that the level of pain in the two respondents and the final result of Mrs. M the difference in pain scores before and after the application was 4 and Mrs. E before and after the application was 3, there was a difference in the two respondents.

Based on table 4.2, the results of the comparison show that the level of pain in the two respondents and the final result of Mrs. M the difference in pain scores before and after the application was 4 and Mrs. E before and after the application was 3, there was a difference in the two respondents. The administration of foot will cause the pain stimulus to be inhibited and reduced because the stimulus from the foot effect will reach the brain faster and close the gate compared to the pain felt (Masadah, 2020). An individual's perception of pain is influenced by several factors, including past experiences also affect an individual's perception of pain and sensitivity to pain. Individuals who have experienced pain or witnessed the suffering of those closest to

them when experiencing pain tend to feel threatened by the pain event that will occur compared to other individuals who have never experienced it. In addition, the success or failure of previous pain management methods also affects the expectations of individuals towards current pain management (Mubarak et al., 2015). This is in line with Mrs. M is a Multigravida mother, who has had previous childbirth experience, while Mrs. E is a Primigravida who has never had a previous labor experience, so that the two respondents have different perceptions of pain and sensitivity to pain. This is shown by the difference in the difference in post-intervention scores.

## 3. Changes in Blood Pressure

**Table 4.3 Comparison of Blood Pressure of the Two Respondents**

Respondents	Before	After
Mrs. M	130/90 mmHg	107/59 mmHg
Mrs. E	120/80 mmHg	110/80 mmHg



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Based on table 4.3, it shows the results of the comparison of blood pressure reduction in post-sc mothers. The theory of changes in blood pressure after foot soaking in mothers after cesarean section (SC) can be understood through several physiological mechanisms and basic theories regarding the effects of hydrothermal therapy. Vasodilation, warm water causes the blood vessels in the legs to dilate (vasodilation). It helps to increase blood flow to the lower extremities, which can reduce peripheral resistance and lower blood pressure. Relaxation of the Nervous System, soaking the feet in warm water also stimulates the relaxation response of the parasympathetic nervous system. This relaxation lowers the stress response and can lead to a drop in blood pressure.

Improving Blood Circulation, warm water helps to improve blood circulation, which can promote the return of venous blood to the heart more efficiently. It can reduce the load on the heart and help in lowering blood pressure. Decreased Muscle Tension: Warm water can help reduce muscle tension, including in areas that may be tense after SC surgery. This contributes to an overall feeling of relaxation, which in turn can lower blood pressure. Psychological Effects, the process of soaking the feet with warm water provides a calming effect and can reduce the anxiety often experienced by mothers after surgery, which can also have an impact on lowering blood pressure. Overall, foot bathing therapy with warm water can be an effective non-pharmacological intervention to help regulate blood pressure in post-SC mothers.

## Conclusion

Based on the results of the application and discussion of the application of footbath therapy to post-sectio caesarea pain, it can be concluded that the level of pain before the application of footbath therapy in the two respondents is classified as a controlled weight category. Meanwhile, the level of pain

after the application of foot bath therapy was carried out, the level of pain in both respondents was classified as moderate anxiety. This shows that this therapy can be an alternative choice in holistic therapy in post-sc patients in relieving pain in the mother. Changes in blood pressure after soaking the feet with warm water in post-sectio caesarean (SC) mothers are related to the relaxing effect caused by the therapy. Where the occurrence of **warm water vasodilation** causes the blood vessels in the legs to dilate (vasodilation). It helps to increase blood flow to the lower extremities, which can reduce peripheral resistance and lower blood pressure.

## Acknowledgement

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## Conflic of Interest

This shows that this therapy can be an alternative choice in holistic therapy in post-sc patients in relieving pain in the mother. Changes in blood pressure after soaking the feet with warm water in post-sectio caesarean (SC) mothers are related to the relaxing effect caused by the therapy.

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