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The Effectiveness of Breast Care on Increasing Breast Milk Production in Mrs. N Post Sectio Caesarea in the Mawar Room of Kardinah Regional General Hospital, Tegal City

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ABSTRACT

Background & Objective: Breast milk is an important component that needs to be considered, especially in terms of production and flow, as it has various benefits for the growth and development of infants. Mothers who have undergone a cesarean section often experience problems with breastfeeding due to inadequate breast milk production. Breastfeeding challenges in postpartum cesarean section mothers are caused by a decrease in oxytocin and prolactin hormones, which play a role in the smooth production of breast milk. To facilitate breast milk production, non-pharmacological efforts are needed, such as *Breast Care*. *Breast Care* is an effort to maintain the condition of a breastfeeding mother's breasts, both during pregnancy and after childbirth (postpartum period). **Method:** A descriptive method was used with the application of case study results. **Result:** The application of *Breast Care* conducted on January 2–4, 2025, to a post-cesarean section patient with breastfeeding issues was ineffective in the Mawar Room of Kardinah General Hospital in Tegal City. On the third day of the study, breast milk flow improved from a scale of 5 to a scale of 2, showing a significant increase. **Conclusion:** It can be concluded that the *Breast Care* technique is effective in increasing breast milk production in post-cesarean section patients in the Mawar Ward of Kardinah General Hospital in Tegal City.

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Introduction

The postpartum period begins after the placenta is delivered and ends when the reproductive organs return to their pre-pregnancy state, which generally lasts about

six weeks (Wahyuningsih, 2019). Most mothers who undergo cesarean section experience difficulties in lactation due to pain in the incision area, which disrupts the secretion of prolactin and oxytocin hormones (Kasmawati, 2025).

Cesarean section (CS) is a childbirth procedure involving the surgical removal of the baby through an incision in the abdominal wall and uterus. In certain conditions, this method is necessary for the childbirth process. Mothers who give birth via *cesarean section* typically experience delays in colostrum production due to various factors. Breastfeeding challenges in *postpartum* mothers who have undergone cesarean section are caused by post-operative pain that disrupts the mother's comfort, thereby hindering the function of the posterior pituitary gland nerves that produce oxytocin, a hormone crucial for the lactation process (Wiwit Putrianingsih, 2022).

According to Widiastuti and Yuni Puji (2020), mothers who undergo *cesarean section* often experience disturbances in breast milk production. Their research shows that 82% of mothers who give birth via *cesarean section* experience this problem. Breast milk blockage can occur when the breast milk emptying process is not optimal, causing lymphatic flow to be blocked and hindering milk flow. As a result, the breasts become full, enlarged, swollen, and extremely painful. The nipples may also flatten due to stretching, making it difficult for milk to flow and causing the baby to have difficulty breastfeeding.

According to the *World Health Organization* and the *United Nations International Children's Emergency Fund*, in 2022, the global coverage of exclusive breastfeeding reached 48%. In Indonesia, the rate of exclusive breastfeeding in the same year was recorded at 67.96%, down from 69.7% in 2021. In Central Java Province, the coverage of exclusive breastfeeding according to the Central Java Health Department in 2021 was 72.5%, an increase compared to 67.3% in 2020. Meanwhile, the coverage of exclusive breastfeeding in Tegal City in 2022 was 65.9% (Tegal City Health Department, 2022).

Breast milk is an important component that needs to be considered, particularly in terms of production and flow, as it has various benefits for the growth and development of infants. The breastfeeding process is influenced by various factors, such as education level, age, knowledge, information about breast care, family support, economic conditions, and the number of children born (parity). Mothers who have undergone a *cesarean section* often experience breastfeeding issues due to inadequate breast milk production. Breastfeeding barriers in *postpartum* mothers who have undergone a *cesarean section* are caused by a decrease in oxytocin and prolactin hormones, which play a role in the smooth production of breast milk. To facilitate breast milk production, non-pharmacological efforts are needed, such as *breast care* (Dini Nurrokhmah, 2024).

Breast care is an effort to maintain the condition of the breastfeeding mother's breasts, both during pregnancy and after childbirth (*postpartum* period). The purpose of this care is to support *breast milk* production, maintain breast hygiene, and help improve the shape of flat or inverted nipples. This care is performed routinely, starting 1–2 days after childbirth, with a minimum frequency of twice daily. One of the benefits of breast care is to help facilitate the milk ejection reflex, also known as the *let-down reflex*. Additionally, this care is effective in increasing the amount of breast milk that can be expressed and preventing breast engorgement or blockages (Ade Febriani, 2023). According to research by Mandasari & Budianto (2021), regular and systematic *breast care* can increase milk production in mothers who have undergone a *cesarean*

section, including those with a history of fetal hypoxia. They recommend a comprehensive approach in providing support and education to mothers *post-cesarean section* to optimize milk production.

If mothers do not perform breast care, this can lead to various negative effects such as nipples not protruding, making it difficult for the baby to latch on, slower milk flow, limited milk volume, decreased breast hygiene, mothers being less physically and mentally prepared for breastfeeding, and nipple skin being more prone to abrasions or scratches (Ade Febriani, 2023).

Based on the above description, the researcher is interested in conducting a case study on the "Effectiveness of Breast Care on Increasing Breast Milk Production in Mrs. N post-Caesarean Section in the Mawar Room of Kardinah General Hospital, Tegal City."

Objective

Based on this, the researcher was interested in conducting this study with the aim of determining the effectiveness of *breast care* on increasing milk production in Mrs. N *post-Caesarean section* in the Mawar Room of Kardinah Regional General Hospital, Tegal City.

Method

This study employed a descriptive research design with a case study approach. The case study approach was conducted through data collection following the nursing process stages, including assessment, nursing diagnosis, intervention planning, nursing intervention implementation, and evaluation. The research subjects in this study were post-cesarean section patients with ineffective breastfeeding issues. The data collection methods used in this study were a literature review of journals and the application of *breast care*. The study was conducted from January 2–4, 2025, in the Rose Room of Kardinah General Hospital in Tegal City.

Results

An assessment was conducted on January 2, 2025, with a client identified as Mrs. N, aged 34 years, G5 P1 A3 H 36 weeks, married, Muslim, with a high school education. The client came to the clinic on January 1, 2025, with a medical diagnosis of cesarean section with an indication of preeclampsia. Mr. D, the client's husband, is 40 years old, works as a day laborer, and has a high school education. During the assessment, the client reported pain at the cesarean section incision site with a pain scale of 6, described as feeling like being stabbed. The client stated that on January 1, 2025, she complained of pain and a tight abdomen, so her family immediately brought her to the emergency room at Ponek RSUD Kardinah Hospital in Tegal City for further examination. At Ponek, her blood pressure was 161/96 with a positive proteinuria result of 1+, indicating severe preeclampsia. Additionally, the patient mentioned that her first child was born via cesarean section and that she had experienced three miscarriages due to fatigue. The fetal heart rate was 136 beats per minute, with no contractions detected over a 10-minute period. Initial blood pressure upon arrival was 170/90, fetal heart rate was 150 beats per minute, no cervical dilation, and no contractions within 10 minutes. A cesarean section was performed on January 2 at 7:30 AM under spinal anesthesia. The cesarean section was completed at 8:23 AM, after which the patient was transferred to the Mawar ward. During the nursing assessment

and physical examination at 3:25 PM, the client reported pain at the surgical incision site, with a pain scale of 6, described as stabbing and intermittent. The client also reported that her breast milk had not yet come in. She stated that her legs were still stiff and painful when moved, and her legs could only bend slightly. Blood pressure was 139/62 mmHg, temperature 37.1℃, pulse 101 beats per minute, and SpO2: 95%. The client reported menarche at age 15, with a menstrual period lasting one week, a normal menstrual cycle, no dysmenorrhea, dark red blood color, no odor, no clotting, and not excessive flow. Last menstrual period in April, estimated delivery date January 24, 2025. The client stated that this was her first marriage, married in 2011 (13 years ago). The client stated that the type of contraception used was the pill and three-month contraceptive injection, which was not suitable because it disrupted the menstrual cycle. She had not yet considered the next type of contraception. The family planned to have two children. Based on the data analysis, the author identifies the nursing diagnosis as ineffective breastfeeding related to inadequate breast milk supply.

Based on the data, the diagnosis for Mrs. N is ineffective breastfeeding related to inadequate breast milk supply (D.0029), characterized by breast milk not flowing or spraying. Nursing care planning for post-cesarean section patients with ineffective breastfeeding issues includes a series of breastfeeding education, starting from observation, therapeutic, to education, including: Identifying readiness and ability to receive information, Identifying the desire to breastfeed, Supporting the mother in increasing confidence in breastfeeding, providing oxytocin massage using *breast care* techniques to improve blood flow and prevent blockages in the breast milk ducts, recommending fiber-rich foods to facilitate breast milk flow, and educating about the benefits of breastfeeding for both mother and baby. *Breast care* interventions are conducted as part of nursing interventions. For Mrs. N, this procedure was implemented on Friday and Saturday. Each session lasts 15 to 20 minutes, with the patient in a seated position.

The implementation carried out on January 2–4, 2025, involved actions tailored to the established plan for the issue of ineffective breastfeeding, focusing on the application of *breast care* for Mrs. N in the Mawar Room at Kardinah General Hospital in Tegal City. Following this, her milk production was observed daily for three days.

The breastfeeding education nursing intervention conducted for Mrs. N on the first day (Thursday, January 2, 2025) included identifying her desire to breastfeed, Supporting the mother in boosting her confidence in breastfeeding, and recommending fiber-rich foods to facilitate milk flow. The patient's response after the implementation was that her milk had not yet come in, as the mother's milk was not dripping/flowing. She was advised to consume more fiber-rich foods to facilitate milk flow.

Implementation of breastfeeding education nursing on the second day (Friday, January 3, 2025) for Mrs. N consisted of providing *breast care* techniques and encouraging the mother to continue trying to breastfeed her child. The patient's response after implementation was that she reported her breast milk was only dripping, and *breast care* had been performed, with the mother advised to continue attempting to breastfeed her baby. On the third day of breastfeeding education nursing care implementation (Saturday, January 4, 2025) for Mrs. N, the following were done: providing oxytocin massage with *breast care* techniques, recommending fiber-rich foods to facilitate milk flow, and explaining the benefits of breastfeeding for

both mother and baby. The patient's response after the implementation was that the breast milk was flowing smoothly, and *breast care* had been performed on Friday and Saturday. The patient appeared to have breastfed her baby, the benefits of breast milk had been explained, and a high-fiber diet had been recommended.

Based on the evaluation results of the case study conducted on Mrs. N, it was found that initially, breast milk had not yet flowed or appeared to drip/flow. After performing *breast care* for 15–20 minutes once on Friday and Saturday. On Thursday, January 2, 2025, the patient reported that her breast milk was still not flowing and had not yet been observed dripping or flowing, with a scale of 5. The patient was advised to increase her intake of fiber-rich foods to aid in the smooth production of breast milk. The follow-up plan included administering oxytocin massage using *breast care* techniques, as well as encouraging the mother to continue attempting to breastfeed her baby. On Friday, January 3, 2025, the patient reported that breast milk had begun to flow, though still in droplets, with a scale of 3. *Breast care* had been performed, and the mother was also advised to try breastfeeding her baby. The next nursing plan included recommending the consumption of fiber-rich foods to facilitate breast milk production, as well as providing education on the benefits of breastfeeding for both mother and baby. On Saturday, January 4, 2025, the patient stated that the milk flow was already smooth at a level of 2. *Breast care* had been performed on Friday. The patient was seen to have started breastfeeding her baby, had been educated about the benefits of breast milk, and was advised to consume fiber-rich foods.

Discussion

In this case, the assessment results showed that the mother's breast milk had not yet come in, so the main problem identified was ineffective breastfeeding. Ineffective breastfeeding is a condition in which the mother and baby experience difficulties or dissatisfaction during the breastfeeding process (SDKI, 2016). To address this problem, the researchers provided education on breastfeeding. This education includes providing support to mothers to boost their confidence in breastfeeding, both through direct and indirect support. Additionally, it is important to involve supportive parties such as husbands, family members, and healthcare providers to encourage mothers to breastfeed more frequently. Researchers also explain the benefits of breastfeeding for mothers and babies, such as preventing infections, meeting the nutritional needs of babies, and forming a strong emotional bond between mothers and children. One form of additional education provided is teaching how to perform *breast care.*

Breast care is an effective method to stimulate increased milk production, making it easier for the baby to consume milk with high nutritional content. *Breast care* physiologically increases the secretion of prolactin and oxytocin hormones, thereby stimulating milk gland activity through massage. Additionally, *breast care* is beneficial in preventing milk duct blockages, maintaining breast hygiene, and preserving nipple elasticity to avoid soreness during breastfeeding. After *breast care* was performed on the second day, it was observed that *breast milk* began to flow from the mother's breasts (Wiwit, 2022).

During the breastfeeding period, *breast care* is very useful for preventing and addressing various issues that may arise in the breasts. With proper care, breastfeeding becomes more comfortable and enjoyable for both the mother and the baby (Fatrin, 2022). Massaging the area around the spine can stimulate neurotransmitter nerves, which then activate the medulla oblongata to send signals to

the hypothalamus via the posterior pituitary gland, thereby stimulating the release of oxytocin. This hormone triggers the release of breast milk from the breasts. Additionally, this massage can reduce tension and stress, which also aids in oxytocin production and facilitates milk ejection, especially after a mother gives birth vaginally (Marsilia, 2019).

Based on findings from three journal articles, non-pharmacological *breast care* techniques were found to be effective for *post-cesarean section* mothers with preeclampsia. According to the journal by Wiwit Putrianingsih and Siti Haniyah (2022) titled "The Effectiveness of *Breast Care* Techniques on the Smoothness of Breast Milk Production in Postpartum Mothers with Cesarean Section in the Flamboyan Room of Prof. Dr. Margono Soekarjo Purwokerto General Hospital." Based on the nursing care provided to patient Mrs. M post-cesarean section, breast milk production before the application of *breast care* techniques was still low. However, after three days of breast care, breast milk production became smoother and flowed in greater quantities. This indicates that breast care is effective in improving breast milk production in *postpartum* mothers who have undergone a cesarean section in the Flamboyan Ward of Prof. Dr. Margono Soekarjo General Hospital in Purwokerto.

Based on the research findings of Ade Febriani and Erick Caesarrani (2023) titled "The Effectiveness of Breast Care on Breast Milk Production in Breastfeeding Mothers in Pekanbaru City." It was found that the intervention from breast care showed that the average breast milk production in the postpartum breast care group was smoother compared to the group without postpartum breast care. *Breast care* was able to increase breast milk volume in postpartum mothers. The breast care method is highly effective for breast milk production. Proper and routine implementation of breast care can help stimulate breast milk flow and reduce the risk of injury to the mother during breastfeeding. Inappropriate breastfeeding techniques are one of the factors that can affect breast shape. Physiologically, *breast care* can stimulate the breasts to increase the secretion of prolactin and oxytocin hormones, which play a role in stimulating the mammary glands through the massage process.

Research conducted by Siregar (2023) entitled The Effect of *Breast Care* on Increasing Breast Milk Production in *Postpartum* Mothers supports this by stating that in postpartum mothers in Karangraharja Village, breast milk production before breast care techniques were applied was still low, but after *breast care* was performed, breast milk production increased. From these results, it can be concluded that breast care is effective in improving the smoothness of breast milk production in Karangraharja Village. *Breast care* after childbirth has several important benefits for breastfeeding mothers. First, breast care can facilitate the milk ejection reflex *(let-down reflex*), making the breastfeeding process easier for the baby. Second, this method is also effective in increasing the amount of breast milk expressed, which facilitates exclusive breastfeeding for babies. Third, breast care helps prevent swelling or blockages in the breasts that can cause pain (Febriani & Caesarrani, 2023).

Conclusion

Based on the research conducted on Mrs. N, who was treated in the Mawar Room of Kardinah Regional General Hospital in Tegal City on January 2, 2025. Based on the nursing care process, an assessment was carried out through observation and physical examination, as well as data collection and classification in accordance with the nursing problems found. For Mrs. N, the primary diagnosis established was

ineffective breastfeeding related to inadequate breast milk supply. In the nursing care plan, the intervention implemented was the provision of *breast care* to help facilitate the flow of breast milk. This intervention was carried out for 15–20 minutes daily over three consecutive days. After this period, breast milk production was reported to have increased significantly on the third day of implementation, specifically on January 4, 2025. These results indicate that breast care techniques are effective in increasing breast milk production in *post-cesarean section* patients in the Mawar Ward of Kardinah General Hospital in Tegal City.

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