

Midwifery Care for Postpartum Women Through Family Empowerment with Oxytocin Massage to Accelerate Breast Milk Expulsion at Puskesmas Beber Cirebon Regency

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ABSTRACT

When a mother experiences stress, sadness, lack of confidence, anxiety, and emotional disturbances during the postpartum period, the levels of oxytocin and prolactin hormones produced by the body will decrease, resulting in a lack of milk production. Inadequate milk intake will cause nutritional imbalance. One of the effects of this nutritional imbalance is that it hinders the optimal growth and development of the baby. One way to accelerate breast milk production is through oxytocin massage, which is very useful, especially in the first few days after giving birth. This study used an observational approach with a pre-test and post-test design. Data were collected through interviews, breast milk production observation sheets, and physical examinations. The oxytocin massage intervention was carried out for 4 consecutive days, with each session lasting approximately 10-15 minutes. The results showed an increase in the score from 0 to 8. In conclusion, oxytocin massage can be an effective complementary obstetric care method to accelerate milk production, while empowering women through a relevant family approach.

1. INTRODUCTION

Every woman who has given birth will go through a postpartum period. The postpartum period lasts for 6 weeks or 42 days, starting from the delivery of the placenta until the reproductive organs return to their pre-pregnancy state. During the postpartum period, the mother's body will undergo many changes, one of which is an increase in breast milk production (Aisyaroh, 2023).

An important factor in the early stages of breastfeeding is exclusive breastfeeding, which is carried out within the first hour after birth, as well as skin-to-skin contact between the mother and baby (Rahmawati & Ramadhan, 2019). Exclusive breastfeeding is the practice of feeding a baby breast milk from birth until 6 months of age without any additional food or drink. Exclusive breastfeeding for newborns is one way to protect babies from infectious diseases, malnutrition, and death in infants and toddlers (Sabriana, Riyandani, Wahyuni, & Akib, 2022).

In addition to babies, breast milk is also beneficial for nursing mothers because it can reduce the risk of breast cancer, ovarian cancer, type 2 diabetes, and hypertension. A study conducted by Morley et al. (2014), published in the book *Profil Kesehatan Jawa Barat* (2023), shows that the cognitive

abilities of babies who are breastfed are better than those who are fed formula milk at 9 months of age.

Inadequate breast milk intake will lead to nutritional imbalances. One of the impacts of this nutritional imbalance is that it hinders the optimal growth and development of infants. Failure to breastfeed can occur due to several factors, such as the mother's lack of understanding about breastfeeding, errors in breastfeeding techniques, and scheduling of breastfeeding. Other factors include the condition of the mother and baby (Umami & Margawati, 2018).

Based on data from the 2023 Global Breastfeeding Scorecard, the rate of exclusive breastfeeding for 6 months has reached 48%. This figure is close to the World Health Assembly (WHO) 2025 target of 50%. The exclusive breastfeeding rate has increased by 10% from the previous achievement, indicating significant progress across various countries. Additionally, the Global Breastfeeding Collective has set a target of 70% by 2030. (CNN Indonesia, 2024).

However, the national exclusive breastfeeding rate is still far below the national target of 80%. Based on the 2023 Indonesian Health Survey (SKI), only 55.5% of infants aged 0-6 months were exclusively breastfed (Yusuf, 2024). The coverage of exclusive breastfeeding in West Java in 2023 was 71.3%, an increase of 1.3% compared to 69.9% in 2022. Based on districts/cities, the highest exclusive breastfeeding coverage was in Subang District at 133.6%, while the lowest exclusive breastfeeding coverage was in Bogor City District at 41.59% (Dinkes Provinsi Jawa Barat, 2023).

Breast milk that does not come out is a condition in which breast milk is not produced or is produced in small amounts. This is caused by a lack of the hormone oxytocin due to a decrease in the baby's suckling, which activates the hormone oxytocin. The hormone oxytocin acts as a stimulant for the smooth muscles that squeeze the breast milk in the alveoli, lobules, and ducts containing breast milk that is released through the nipples (Asih, 2017).

According to Fikawati, et al (2015), cited in Asih (2017) one of the actions that needs to be taken to maximize the quality and quantity of breast milk is back massage. Back massage can stimulate the release of the hormone oxytocin and facilitate breast milk production. According to Lowdermik, Perry & Bobak (2000), cited by Asih (2017), oxytocin massage is one solution to overcome poor breast milk production. Oxytocin massage involves massaging along the spine (vertebrae) to the fifth and sixth ribs and is an effort to stimulate prolactin and oxytocin hormones after giving birth.

Based on the above description, the author is very interested in taking the case of "Oxytocin Massage to Increase Breast Milk Production" and providing midwifery care to help breastfeeding mothers with insufficient breast milk using the oxytocin massage method.

2. METHODS

The data collection method used in this scientific paper is a case study through interviews, health education and oxytocin massage demonstrations, as well as observation. The writing design in this scientific paper is a descriptive case study, to provide an overview of midwifery care using oxytocin massage techniques that can stimulate milk production at the Beber Community Health Center in Cirebon Regency. The tools used in this application were leaflets, oxytocin massage guidelines, and breast milk production observation sheets (Fatrin, Soleha, Apriyanti, Sari, & Aryanti, 2022).

According to Anggraeni, Dewi, and Kesumadewi (2021), prolactin levels peak during the first 10 days after giving birth. The data collection subject was a postpartum mother who had just given birth, who wanted to exclusively breastfeed her baby but had difficulty producing breast milk. Oxytocin massage was performed during the golden period, which is 4 consecutive days starting from the first day of the postpartum period, with a massage frequency of 10-15 minutes (Ratnawati & Agustina, 2023).

3. RESULTS AND DISCUSSIONS

Result of application

The following are the results of applying oxytocin massage during observation

Table 1 Observation of Breast Milk Production and Signs of Sufficient Breast Milk Intake in Infants

| No. | Description | Breast milk production before oxytocin massage (6 hours) | Day 2 | Day 3 | Day 4 |
|-------|--|--|-------|-------|-------|
| 1. | Breast milk comes out without squeezing the breast | No | No | No | Yes |
| 2. | Breasts feel full or tense before breastfeeding | No | No | No | Yes |
| 3. | Breast milk immediately after the baby starts feeding | No | No | Yes | Yes |
| 4. | Breasts feel empty/soft after breastfeeding. | No | No | No | Yes |
| 5. | Breast milk is still leaking after breastfeeding. | No | No | No | Yes |
| 6. | After feeding, the baby will sleep/be calm for 3-4 hours. | No | No | Yes | Yes |
| 7. | Babies urinate about 6 times a day and their urine is pale yellow, like straw. | No | No | Yes | Yes |
| 8. | Defecate twice a day with yellow baby stool. | No | Yes | Yes | Yes |
| TOTAL | | 0 | 1 | 4 | 8 |

Answer score explanation

0 = No

1 = Yes

Total score

≤ 3 = Low breast milk production

4 - ≤ 6 = Adequate breast milk production

≥ 7 = High breast milk production

Based on Table 1 above, the results of observations on Mrs. A over 4 days show a significant increase, which can be seen from the scores listed. The table explains that there are 3 indicators that can be used to determine whether breast milk production is sufficient. An indicator of ≤ 3 means that breast milk production is insufficient, $4 - \leq 6$ means that breast milk production is sufficient, and ≥ 7 means that breast milk production is abundant. Based on the table, the results show that on the first and second days, breast milk production was insufficient with a score of 0-1. Then, on the third day, breast milk production increased from insufficient to sufficient with a score of 4. And on the fourth day, there was an increase to abundant breast milk production with a score of 8.

The application of oxytocin massage began on March 2, 2025, at the Beber Community Health Center (Puskesmas Beber) and continued through home visits until March 5, 2025, with the last visit on May 9, 2025. Mrs. A said that 6 hours after giving birth, she only produced a small amount of breast milk, which was colostrum equivalent to 1 soybean when palpated. During the second visit on March 3, 2025, the breast milk was still colostrum, producing 3 drops when palpated, and the breasts still felt soft before breastfeeding. The mother reported that the baby had had two bowel movements with yellowish stools. This is one of the five signs of adequate breast milk intake according to Okvitasari and colleagues (2024).

On the third day of massage, Mrs. A said that more milk was coming out than the previous day and her breasts felt a little firmer. On the fourth day after massage, breast milk began to flow abundantly without palpation, appearing white and cloudy. Her breasts felt hard before breastfeeding. After feeding, the baby slept for 3-4 hours, with a urination frequency of about 7 times a day and a bowel movement frequency of 2 times a day. These findings met the criteria for adequate breast milk intake according to the attachment on breast milk production observation and signs of adequate breast milk intake.

The results obtained from the application of oxytocin massage to help facilitate milk production in Mrs. A were achieved, and Mrs. A's milk production ran smoothly. This is in line with Dewi's (2022) opinion in the journal by Afriany et al. (2024), which states that back massage can provide comfort for mothers, which can help with milk production and reduce pain. This massage can provide a sense of calm for mothers so that they can maintain milk production.

Mrs. A said she really enjoyed eating vegetables. The food consumed by nursing mothers must provide adequate nutrition because the nutrients obtained will be converted into breast milk, which is very much needed by babies. This aligns with the journal by Wardani, Megawati, and Herawati (2021), which states that the recommended balanced nutrition for breastfeeding mothers includes protein, vitamins A and B, calcium, iron, and zinc to produce breast milk, support bodily metabolism, and influence the composition of breast milk given to their babies.

Abnormalities on days 0 to 3 after giving birth are physiological in nature, according to Lowdermilk (2013), who states that immediately after giving birth, high estrogen levels inhibit the production of oxytocin in breast milk production, but will gradually decrease. Estrogen and progesterone levels will decrease and reach their lowest levels one week after childbirth (Suriati & Yusnidar, 2022).

According to Nurhasanah et al. (2023), good breast milk production requires a calm state of mind and spirit. When postpartum mothers experience stress, sadness, lack of confidence, anxiety, and emotional disturbances, the hormones oxytocin and prolactin produced by the body will decrease, resulting in insufficient breast milk production. As seen in the psychological assessment of Mrs. A 2-6 hours after giving birth, she was still worried about her breast milk, which was only coming out in small amounts. After being given an explanation about how to breastfeed and latch correctly, as well as counseling about breast milk physiology, Mrs. A felt calmer and no longer worried.

The family also plays a role in providing support, particularly in assisting with oxytocin massage for breastfeeding mothers. Mrs. A's husband and family were able to demonstrate oxytocin massage as taught by the author. This is in line with the statement by the Indonesian Ministry of Health (2021) in the journal by Gultom, Jasmawati, and Nulhakim (2023) that every family plays a role in optimizing the growth, development, and productivity of all its members by fulfilling nutritional needs and ensuring the health of family members.

4. CONCLUSION

Based on the results of observations conducted on the effectiveness of oxytocin massage on smooth breast milk production in mothers after normal delivery at the Beber Community Health Center, Cirebon Regency, it can be concluded that before oxytocin massage was performed, breast milk production was not smooth, and after oxytocin massage was performed, the research subjects experienced an increase in breast milk production. In addition to oxytocin massage, other factors such as family support and diet can also affect breast milk production.

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