

Postpartum Midwifery Care Using Oxytocin Massage and Deep Breathing Exercises to Reduce Breast Milk Congestion at the Mira Hartati, S.Tr. Keb., Bd. Maternity Clinic in 2026.

Melisa¹, Siti Hajar², Devi Susana Pinem³

^{1,2,3} Fakultas Ilmu Kesehatan, Program Studi Kebidanan
Universitas Putra Abadi Langkat

ARTICLE INFO	ABSTRACT
Article history: Received Jun 20, 2026 Revised Jul 08, 2026 Accepted Jul 24, 2026 Keywords: Breast Milk Retention Deep Breathing Exercises Midwifery Care Oxytocin Massage Postpartum Mothers	Breast engorgement is a common problem experienced by postpartum mothers during the first week after childbirth and can cause pain, breast swelling, and interfere with the flow of breast milk. One nonpharmacological approach that can be used to address this condition is oxytocin massage combined with deep breathing exercises. This case study aims to provide midwifery care to a postpartum mother using oxytocin massage and deep breathing exercises as interventions to reduce breast engorgement at the Mira Hartati, S.Tr. Keb., Bd Midwifery Clinic in 2026. The method used was a descriptive case study. Data collection was conducted using primary data—including interviews, observations, examinations, and direct interventions—as well as secondary data obtained from postpartum maternal registers, medical records, maternal and child health (MCH) records, and relevant literature. Data collection took place from June 1–3, 2026, at the Mira Hartati, S.Tr. Keb., Bd., Maternal and Child Health Clinic. The results of the care provided showed that after the oxytocin massage and deep breathing exercise interventions, the mothers' conditions improved, as indicated by softer breasts, reduced pain, decreased breast engorgement, smoother milk flow, and greater comfort during breastfeeding. Midwifery care involving oxytocin massage and deep breathing exercises demonstrated a reduction in breast engorgement among postpartum mothers. <i>This is an open access article under the CC BY-NC license.</i> 

Corresponding Author:

Melisa
Fakultas Ilmu Kesehatan, Program Studi Kebidanan
Universitas Putra Abadi Langkat
Jl. Letjen R. Soeprapto No.10, Kwala Bingai, Sumatera Utara 20814. Indonesia
Email: Melisa2006mai@gmail.com

1. INTRODUCTION

The postpartum period is the time from the delivery of the placenta until 42 days postpartum, during which the mother's body undergoes physiological and psychological recovery and enters the lactation phase—a natural process that provides the best nutrition for the baby. However, various breastfeeding problems often arise during this time, one of which is breast milk engorgement, which can hinder the success of exclusive breastfeeding (Prawirohardjo, 2020).

Breast engorgement is a condition in which the breasts feel full, hard, swollen, and painful, and is sometimes accompanied by localized warmth due to the accumulation of breast milk and vascular and lymphatic congestion. This condition generally occurs on the third through fifth day after childbirth, when milk production increases but the breasts are not yet being emptied optimally (Walyani, 2021).

The World Health Organization explains that breastfeeding problems, including breast engorgement, are among the causes of early weaning in various countries. Globally, approximately 20–40% of breastfeeding mothers experience breast engorgement during the first postpartum week, particularly among primiparous mothers and those using improper breastfeeding techniques; as a result, this condition remains an international maternal health issue (WHO, 2023).

In addition to causing pain, a breast milk blockage that is not promptly addressed can lead to sore nipples, difficulty for the baby to latch on during breastfeeding, decreased milk production, mastitis, and even a breast abscess; therefore, early intervention is necessary to ensure that the breastfeeding process continues optimally (Maryunani, 2021).

In Indonesia, breast engorgement is still commonly observed in postpartum mothers. A study in Pekanbaru showed that 78.3% of breastfeeding mothers had experienced breast engorgement during lactation, while a 2024 study in the service area of the Seputih Mataram Community Health Center reported that 197 out of 534 postpartum mothers (37%) experienced breast engorgement. Factors contributing to this condition include incorrect breastfeeding techniques, infrequent breastfeeding, breasts not being fully emptied, stress, fatigue, cesarean delivery, and a lack of maternal knowledge regarding lactation management. Primiparous mothers also have a higher risk of experiencing breast engorgement because they lack breastfeeding experience (Indonesian Ministry of Health, 2022).

In North Sumatra Province, the uneven coverage of exclusive breastfeeding remains linked to various lactation issues, such as milk engorgement, sore nipples, and the perception of insufficient milk supply, which are exacerbated by limited lactation education and family support (North Sumatra Health Office, 2024). One nonpharmacological approach that can be used to reduce milk engorgement is oxytocin massage, which works by stimulating the hormone oxytocin, thereby facilitating the milk ejection reflex (Roesli, 2021).

In addition, deep breathing exercises can promote relaxation, reduce stress, improve blood circulation, and increase the mother's comfort, thereby increasing oxytocin secretion and optimizing breast milk production (Bobak, 2020). The combination of oxytocin massage and deep breathing exercises is believed to be more effective because it works through simultaneous hormonal stimulation and psychological relaxation, thereby helping to relieve milk engorgement more quickly, reduce pain, and boost the mother's confidence in breastfeeding her baby (Varney, 2021).

Midwives play a vital role in providing midwifery care through early detection, education on proper breastfeeding techniques, psychological support, and the provision of nonpharmacological interventions to prevent complications and increase the success of exclusive breastfeeding (Indonesian Ministry of Health, 2022).

Based on a preliminary survey conducted by Mira Hartati, S.Tr.Keb., Bd., at PMB, it was found that from February to March 2026 there were 9 postpartum mothers, and interview results showed that some of them complained of a lack of breast milk or a slow milk flow in the early days after giving birth, leading them to choose to feed their babies formula because they were not yet aware of the benefits of oxytocin massage.

Based on these conditions, the research question of this study is: How does the implementation of midwifery care for postpartum mothers using oxytocin massage and deep breathing exercises affect the reduction of breast milk engorgement at the Mira Hartati, S.Tr.Keb., Bd. Maternity Clinic in 2026, using Varney's seven-step midwifery management approach? This study aims to provide midwifery care to postpartum mothers using oxytocin massage and deep breathing exercises to reduce breast engorgement at the Mira Hartati, S.Tr.Keb., Bd. Maternity Clinic in 2026, using Varney's seven-step midwifery management approach.

2. METHOD

The method used in this case study is the descriptive method. This is a method conducted with the primary objective of objectively presenting or providing an overview of a situation, and this type of report is a case study—that is, it is conducted by examining a problem through a process consisting of a single unit. This case study was conducted from June 1–3, 2026, and the location where the case was studied was at PMB Mira Hartati, S.Tr.Keb., Bd. In this study, data collection techniques were employed to obtain accurate information regarding the condition of postpartum mothers before

and after receiving the oxytocin massage and deep breathing exercise intervention. The data collection techniques used consisted of primary and secondary data. The reduction in breast milk engorgement was measured based on predetermined indicators, while data collection was conducted on postpartum mothers from day 1 to day 7 postpartum or according to the postpartum visit schedule at the study site.

1. Primary Data

Primary data is data obtained directly from respondents or research subjects through interviews, observations, examinations, and direct actions. The primary data collected in this study includes:

A. Interview

Conducted in person with postpartum mothers using a structured questionnaire to collect data on:

1. Respondent's identity.
2. Age, parity, education, and occupation.
3. Delivery history.
4. Postpartum days.
5. Complaints of breast fullness, pain, and swelling.
6. Breastfeeding history and frequency.
7. The mother's knowledge of breast milk blockage.

B. Observation

This is conducted by observing the condition of the postpartum mother before and after the intervention, including:

1. The mother's general condition.
2. The condition of the breasts (swelling, firmness, tenderness).
3. The ease of milk flow.
4. The mother's response during the procedure.
5. The mother's comfort after the intervention.

C. Physical Examination

A simple examination is performed on the postpartum mother, including:

1. Vital signs (blood pressure, pulse, temperature, respiratory rate).
2. Breast inspection (symmetry, redness, swelling).
3. Breast palpation (hardness, tension, tenderness).
4. Condition of the nipples (protruding/flat/chafed).

D. Administration of Interventions

The researchers performed the following interventions:

1. Oxytocin massage, in accordance with standard operating procedures (SOPs), on the back area along the spine to the scapulae.
2. Deep breathing exercises involving regular deep breaths.
3. Changes in breast milk engorgement were then observed after the interventions were performed.

2. Secondary Data

Secondary data is obtained from available documents or records, including:

- A. The postpartum mothers' registry at the PMB.
- B. Patients' medical records.
- C. Data on the number of visits by postpartum mothers.
- D. Mothers' Maternal and Child Health (MCH) records.
- E. Literature, journals, and books related to breast milk retention, oxytocin massage, and deep breathing exercises.

3. How to Measure a Decrease in Breast Engorgement

A decrease in breast engorgement is measured based on the following indicators:

- A. The breasts feel softer.
- B. Breast pain decreases.
- C. Swelling decreases.
- D. Breast milk begins to flow more freely.
- E. The mother feels more comfortable while breastfeeding.
- F. The baby is able to nurse more effectively.

4. Data Collection Period

Data collection was conducted among postpartum women from the first to the seventh day postpartum or according to the postpartum visit schedule at the study site.

3. RESULTS AND DISCUSSION

The discussion phase aims to analyze the results of the midwifery care provided to the patient and compare them with theory and previous research findings. In this case, midwifery care was provided using the Varney Midwifery Management approach, which consists of seven steps: collection of baseline data, interpretation of baseline data, identification of potential diagnoses or problems, identification of immediate care needs, care planning, implementation of care, and evaluation. By applying these seven steps, midwives can provide systematic, comprehensive, and continuous care tailored to the patient's needs.

This discussion will outline each step of Varney's midwifery management approach as applied to a postpartum woman with breast milk stasis who received interventions involving oxytocin massage and deep breathing exercises. The outcomes of the care provided will be compared with theoretical frameworks and the results of previous studies to determine the alignment between practice, theory, and existing scientific evidence.

Assessment

In the first step of Varney's midwifery management, the midwife conducts a comprehensive assessment to obtain accurate information about the postpartum mother's condition. The author obtained this information through direct interviews with the client and her family, as well as through physical examinations and supportive/laboratory tests.

From the case review, the following subjective data were obtained: the mother reported having just given birth to her first child on May 26, 2026; she complained of fatigue after giving birth; she reported that her breasts were hard and firm; and she stated that her breast milk was not flowing smoothly. Objective findings included the fundus of the uterus (TFU) at 2 fingers below the umbilicus; bloody lochia discharge; the mother gave birth to a baby weighing 3,000 grams; the mother's general condition was good; her breasts appeared full and firm (score 4); breast milk flow was not smooth; and her nipples were protruding.

The results of this study are consistent with the theory proposed by Walyani (2020), which states that breast milk engorgement is characterized by breast swelling due to the accumulation of breast milk, increased vascularization, and breast tissue edema. Common symptoms include breasts that are hard, tense, painful, and warm, as well as suboptimal milk flow. According to Varney, comprehensive data collection is essential as it serves as the foundation for determining an accurate diagnosis and an appropriate care plan.

The findings of this case are also consistent with research conducted by Astutik (2021), which showed that most postpartum mothers with breast engorgement complained of swollen, painful, and full breasts, and experienced difficulty breastfeeding on the third through fifth days postpartum. Research by Fitriani and Sari (2022) also found that breast engorgement often prevents infants from latching effectively because the areola becomes taut and the nipple is difficult for the infant to grasp with their mouth.

Based on a comparison of clinical cases, theory, and the results of previous studies, no discrepancies were found, as all signs and symptoms observed in the patients were consistent with the characteristics of breast milk engorgement described in both theory and previous studies.

Data Interpretation

Once the data has been collected, the midwife performs an analysis to determine the obstetric diagnosis. The second step involves interpreting the data by accurately identifying the data in relation to the diagnosis or the patient's needs.

Based on the case review, the diagnosis was determined to be: Ms. N, age 19, P1 A0, a postpartum mother on day 5 with moderate breast milk engorgement. The issue is that the mother is experiencing anxiety and fatigue and requires an oxytocin massage and deep breathing exercises.

According to Marmi (2021), data interpretation is conducted to identify actual problems and patients' needs. In cases of breast milk blockage, the problems that often arise are not only physical but also psychological. When breast milk does not flow smoothly, mothers often worry that their babies are not getting enough nutrition, which leads to anxiety and a loss of confidence in breastfeeding.

The findings of this case are supported by a study by Rahmawati et al. (2021), which found that postpartum mothers with breast milk blockages tend to experience discomfort, pain, and anxiety regarding the success of exclusive breastfeeding. The study indicates that psychological factors play an important role in successful lactation, as stress and anxiety can inhibit the milk ejection reflex. Thus, the interpretation of the data in this case is consistent with the theory and the results of previous studies.

Identification of Potential Diagnoses

In the third step, the midwife identifies potential problems that may arise if the breast milk blockage is not properly addressed. The identification of potential diagnoses or problems is carried out by identifying predefined problems or diagnoses. Based on a review of the theory regarding Ms. N's case of breast milk blockage, a potential diagnosis is mastitis.

According to Manuaba (2021), prolonged milk stasis can cause a blocked milk duct, which can then develop into mastitis. If mastitis is not treated promptly, the infection can progress to a breast abscess, requiring further medical intervention.

A study by Dewi and Handayani (2022) shows that mothers who experience breast engorgement are at a higher risk of developing mastitis than mothers who do not experience breast engorgement. The study also explains that delays in treating breast engorgement can lead to a decrease in breastfeeding frequency, which in turn reduces milk production. In this case, potential problems were identified accurately, thereby preventing more serious complications. This is consistent with theory and the results of previous research.

Preparation for Immediate Action and Collaboration

Based on the assessment results, no signs of an emergency requiring immediate action were found. Preparation for immediate action and collaboration are necessary in the event of an emergency. Based on a theoretical review of Ms. N's case involving breast milk engorgement, no immediate action, collaboration, or referral is required.

Based on the assessment results, no signs of a medical emergency requiring immediate action were found. However, the midwife continued to identify potential conditions that might require collaboration or referral, such as high fever, widespread redness of the breasts, severe pain, and signs of infection.

According to the Ministry of Health of the Republic of Indonesia (2021), postpartum women experiencing breast engorgement accompanied by a high fever, widespread redness, and severe pain should undergo immediate further evaluation, as these symptoms may indicate mastitis or a breast abscess.

A study by Kusumawati (2022) shows that early detection of signs of infection in postpartum women is crucial for preventing complications that can interfere with successful breastfeeding. Therefore, the observation and collaborative measures planned in this case were consistent with theory and research findings.

Planning

According to theory, comprehensive nursing care planning for a patient is based on an assessment of the patient's condition or any related issues; however, planning may also involve a framework for anticipating what will happen next for that woman.

Based on the case review of Ms. N, the following action plan has been developed: Inform the mother of the examination results; monitor her vital signs; explain the benefits of combining oxytocin massage with deep breathing exercises; perform oxytocin massage and deep breathing exercises; advise the mother to breastfeed her baby on demand, alternating between both breasts; teach the mother how to care for her breasts, teach her proper breastfeeding techniques, provide emotional support to the mother, provide health education to the mother regarding warning signs of milk stasis, and inform the mother that a follow-up visit will be scheduled for tomorrow.

According to the theory proposed by Roesli (2020), regular breast emptying is the primary step in addressing breast engorgement. In addition, stimulating the hormone oxytocin through oxytocin massage can help facilitate the milk ejection reflex. Deep breathing exercises are recommended because this technique helps induce relaxation, which can increase the release of oxytocin. According to the theory of lactation physiology, a calm emotional state supports the milk ejection process, allowing the blockage to resolve more quickly.

A study by Widiawati et al. (2023) shows that oxytocin massage is effective in improving breast milk flow and reducing breast engorgement in postpartum mothers. Another study by Nurhayati and Sari (2022) found that deep breathing relaxation exercises can reduce anxiety levels in postpartum mothers and improve breastfeeding success. Thus, the care plan for this case is consistent with theory and supported by various research findings.

Implementation

According to implementation theory, implementation is carried out as planned to achieve specific objectives. However, implementation may deviate from the plan under certain circumstances. (Wiknjosastro, 2015).

In the case study of Mrs. N, the care was provided as planned. Care was provided according to the established plan. The midwife explained breast milk blockage, helped the mother achieve the correct breastfeeding position and latch, performed an oxytocin massage along the spine to the shoulder blades, guided the mother through deep breathing exercises, encouraged her to stay relaxed, and recommended alternating breastfeeding on both breasts.

According to Roesli's theory (2020), oxytocin massage stimulates the release of the hormone oxytocin, which increases the contractions of the myoepithelial cells surrounding the breast alveoli and makes it easier for breast milk to flow. Meanwhile, deep breathing exercises help reduce stress hormones that can inhibit the milk ejection reflex.

A study by Yuliana et al. (2022) showed that oxytocin massage significantly improved breast milk flow and reduced breast engorgement in postpartum mothers. Another study by Pratiwi and Kurniawati (2023) found that deep-breathing relaxation techniques had a positive effect on mothers' comfort and accelerated breast milk ejection.

The care provided in this case was consistent with existing theory and previous research, indicating that the intervention administered was the appropriate course of action to address breast milk blockage.

Evaluation

According to theory, evaluation involves assessing the effectiveness of the care plan provided, including determining whether the patient's needs have truly been met in accordance with the identified problems and diagnoses (Varney, 2017).

The results of the evaluation following three days of midwifery care showed that the mother reported her breast milk was flowing freely, her breasts felt soft, the baby was breastfeeding 6–7 times in 24 hours, the mother reported urinating 8 times in 24 hours, and her breasts were soft and pain-free (Score 1).

According to Varney, the success of nursing care is determined by the achievement of planned goals. In the case of breast engorgement, indicators of success include reduced swelling, increased milk flow, and greater comfort for the mother during breastfeeding.

These evaluation results are consistent with the study by Widiawati et al. (2023), which showed that oxytocin massage can accelerate breast milk let-down and reduce breast engorgement. Additionally, the study by Nurhayati and Sari (2022) showed that deep breathing exercises promote relaxation in mothers, thereby supporting successful breastfeeding.

Based on the results of the evaluation, theory, and previous research, it can be concluded that the combination of oxytocin massage and deep breathing exercises is effective in helping to relieve breast engorgement, facilitate milk flow, improve the mother's comfort, and support the success of exclusive breastfeeding.

4. CONCLUSION

Based on the researcher's analysis, which compared theories with the case study of Mrs. N, the author draws conclusions and offers recommendations. The case study conducted on Mrs. N shows that, following three days of midwifery care, the mother reported that her breast milk flow was now unobstructed, her breasts felt soft, the baby was breastfeeding 6–7 times in 24 hours, The mother reported urinating 8 times in 24 hours, and her breasts were soft and pain-free (Score 1). It is hoped that midwives can optimize midwifery care for postpartum mothers by providing education on the prevention and management of milk stasis. Oxytocin massage and deep breathing exercises can serve as safe, easy, and effective nonpharmacological interventions to help resolve milk stasis and increase the success of exclusive breastfeeding. Midwives are also encouraged to involve families in performing oxytocin massage so that it can be continued at home.

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