Application Of Oxytocin Massage In Spontaneous Post Partum Mothers To Increase Breast Milk Production

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ABSTRACT

Objective: The purpose of this case study was to determine the effectiveness of oxytocin massage in post partum mothers to increase milk production.

Method: The method used is a descriptive analysis design in the form of a case study with a mathematic nursing care process approach which includes assessment, diagnosis, planning, implementation, and evaluation. The subjects used in this study were clients who had problems with Ineffective Breastfeeding in the Teratai 2 Room BLUD RSU Banjar City. With data collection techniques including interviews, observation, physical examination, and documentation studies.

Result: This case study is supported by objective data and subjective data. The objective data obtained were that the patient admitted that the breasts did not feel tight, the breasts were clean, there were no lesions and redness, blood pressure 120/80 mmHg, temperature 36.6°C, pulse 86x/minute, respiration 20x/minute. While subjective data, namely the recognition of patients complaining of very little milk expenditure.

Conclusion: There is an effect of oxytocin massage on milk production in spontaneous post partum mothers. It is expected that mothers who experience irregular milk production will routinely perform massage actions to expedite milk production.

Keywords: oxytocin massage, post partum, breast milk production

Introduction

The puerperium or post partum period, also known as the puerperium, is the time needed to restore the reproductive organs to the way they were before pregnancy or is called involution, starting from the end of labor (Permana et al., 2018). The puerperium begins after the release of the placenta and ends when the uterus returns to its pre-pregnancy state. This period lasts for approximately 42 days or 6 weeks. During normal delivery or delivery with an
instrument, tears in the perineum can occur in the birth canal and it is not uncommon for it to occur in next delivery (Delima et al., 2016).

This period can be the most difficult for a mother, especially for young mothers who have given birth for the first time, physically, psychologically, mentally and spiritually, they are not ready to face this problem, the problems that mothers will experience are related to the return of the uterus to its pre-pregnancy state after giving birth and the process of breastfeeding starting from the production of breast milk to the process of the baby sucking and swallowing milk. During the postpartum period, the mother will also experience several changes, one of which is a change in the breast (Permana et al., 2018).

Breastfeeding is very important for a mother for her baby, because breast milk has many nutrients that are useful for baby's intelligence. All substances contained in breast milk such as white matter, fat, carbohydrates, vitamins, minerals, immune substances, hormones, enzymes and white blood cells are needed by babies to grow and develop, besides that, breast milk is also useful to help protect babies from diseases (Indrayani & Anggita, 2019). such as diarrhea, fever, sudden death and protecting against food allergies, the optimal benefits of breast milk will be obtained if the mother gives exclusive breastfeeding without additional food for six months (Nufus, 2019).

Based on data from the World Health Organization (WHO) in 2018 the majority of 75% neonatal deaths occur during the first week of life, and around 1 million newborns die in the first 24 hours. This includes premature birth, birth-related complications with asphyxia or respiratory failure, and infectious birth defects (Umbarsari, 2017). Not only globally, in Indonesia itself until now the infant mortality rate is quite high when compared to many other countries. The main causes of infant mortality in Indonesia are 49.2% neonatal deaths, 15.0% diarrhea, 14.7% pneumonia and 20.8% infant health status. Another important factor is not getting exclusive breastfeeding at birth, this is what causes premature death. Exclusive breastfeeding is nutrition that is very influential on the survival of newborns, with the presence of clostrum in the mother in the first 24 hours of giving it to the baby (Arniyanti & Angraeni, 2020).

In Indonesia itself, exclusive breastfeeding for infants under 6 months of age is an indicator listed in the Ministry of Health’s strategic plan for 2020-2024, even in the Ministry of Health’s strategic plan for the previous period (2015-2019) this indicator has become an activity performance indicator (IKK) of the bureau. community nutrition, because it is related to the government’s priority plan, which means accelerating the reduction of stunting. In 2020, the number of babies under 6 months of age is 3,196,303, only 2,113,564 babies get exclusive breastfeeding, or around 66.1%. The indicator for the percentage of babies under 6 months who are exclusively breastfed reaches the 2020 target, which is 40%. Distributed by province, a total of 32 provinces in Indonesia have achieved the target of exclusive breastfeeding coverage, and there are still 2 more provinces that have not met the target, namely West Papua (34%) and Maluku (37.2%). The province with the highest achievement of exclusive breastfeeding was West Nusa Tenggara (87.3%) (P. Wulandari et al., 2018).

West Java Province is recorded as the area with the highest infant mortality rate.
Because there is still a lack of awareness among pregnant women in maintaining their health, so many cases of infant death are caused by the baby's weight at birth or being abnormal. The high and low IMR is also influenced by the period of delivery, administration of breast milk (ASI) and food, as well as administration of immunizations (Permana et al., 2018).

Based on medical records in the Teratai 2 Room BLUD Banjar City Hospital in 2021 there were 12.60% spontaneous births, with the proportion of mothers giving birth 527 cases and premature births of 8.30% with the proportion of mothers giving birth 347 cases with 2 periods from 1 January 2020 to 31 December 2021 post Partum is in the 2nd order and premature birth is in the 4th place out of the top 10 diseases in the Banjar City General Hospital in the Teratai 2 Nursing Room.

Exclusive breastfeeding is breastfeeding for the first 6 months of a baby’s life without intake of food or other drinks except vitamins, medicine and ORS. The function of breastfeeding is to fulfill the baby's nutritional intake, increase endurance and reduce infant morbidity and mortality, therefore exclusive breastfeeding is highly recommended and it is recommended to continue until the baby is 2 years old (P. Wulandari et al., 2018).

Management of postpartum mothers to increase milk production includes breast care or breast care, breast exercise, breast massage and oxytocin massage. As an alternative, for a safer substitute for therapy so that it can increase milk production not only to increase milk volume, but to prevent engorgement in the breasts. One of the non-pharmacological therapies that can be done is herbal therapy, oxytocin massage, guinea pig massage, endorphins massage, warm compresses, breast care and aromatherapy. However, due to limited information in health services regarding implementation procedures, these methods are rarely provided by health workers (Dewi et al., 2022).

One of the causes of breast milk not coming out is swelling in the breast, resulting in a buildup of residual milk in the lactoferus duct area, where the lactoferus duct itself is a channel in the breast that is useful in flowing milk. This can happen on the third day after giving birth. In addition, the use of tight bras and unclean nipple conditions can cause duct obstruction. And if there is no good intervention because the occurrence of breast swelling will cause sore nipples, mastitis or breast infection, and breast abscesses to the point of causing septicemia where this condition is caused by a chemical substance produced by the immune system into the bloodstream that actually triggers inflammation. the chemical works against the infection (Rohmah et al., 2019).

Management to increase milk production is by doing breast care or breast care which aims to improve blood circulation and prevent clogging of the milk production channels so as to facilitate the release of breast milk. Apart from that, another way to deal with non-smooth milk production is by doing oxytocin massage. Oxytocin massage is massage on the spine starting from the cervical spine to the twelfth thoracic spine, and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth. This massage serves to increase the hormone oxytocin which can calm the mother, so that the milk comes out by itself. Oxytocin massage can increase milk production by reducing blockages in the milk production ducts thereby facilitating milk ejection (Amelia Nur Hidayanti, 2022).
Research conducted by (F. T. Wulandari et al., 2016) with the title Oxytocin Massage and Breast Care on the Smooth Expulsion of Breast Milk in Postpartum Mothers, proves that after oxytocin massage can help express milk in postpartum mothers with the result that the milk released experiences an increase in milk production.

Preliminary study by conducting assessments on post partum mothers, with complaints of pain in the breasts and milk not coming out. The interventions carried out were oxytocin massage therapy and health counseling about post partum mothers and the benefits of oxytocin massage to facilitate breastfeeding. Which was carried out on Thursday, June 1, 2023 in the lotus room 2 of the Banjar City Hospital, for 1 day and continued via WhatsApp communication.

Based on the results of the explanation above and previous research, the authors are interested in conducting a case study entitled "Application of Oxytocin Massage in Spontaneous Post Partum Mothers to Increase Breast Milk Production". The difference between this study and the previous results was that with the intervention of oxytocin massage for spontaneous postpartum mothers to increase milk production, the researchers intended to evaluate the management of the application of oxytocin massage to spontaneous postpartum mothers to increase milk production.

**Objective**

The purpose of this case study was to determine the effectiveness of oxytocin massage in post partum mothers to increase milk production.

**Method**

This study uses a descriptive analysis design in the form of a case study with a process approach to maternity nursing care which includes assessment, nursing diagnosis, planning, implementation and evaluation. This case study is a case study to explore the problem of nursing care for post partum mothers regarding breastfeeding with a descriptive approach in the Teratai 2 room BLUD RSU Banjar City. The focus of the intervention in this case study was oxytocin massage therapy which was carried out 2 times a day on the first and second post partum days, because on both days not enough milk was produced with the same time span, for 15 minutes. Given once a day before breastfeeding or expressing milk.

The subjects used in this study were the clients Ny. W who experienced the problem of Ineffective Breastfeeding in the Tearatai Room 2 BLUD RSU Banjar City. The data collection technique used was an interview starting with the introduction stage, contacting the client, collecting client identity data, asking the client's main complaint, and reviewing the client's medical history. Other data collection namely observation, physical examination and documentation study.
Results

Assessment

Based on the results of the study, it was found that Mrs. W was 32 years old with spontaneous partum, was Muslim and had her address at Villa Gading, Bekasi. Mrs.S works as a housewife and an entrepreneur. Information about clients is obtained based on the results of interviews conducted with clients and families. The client entered the Emergency Room at the Banjar City Hospital on June 1, 2023 at 19.09 WIB. The client was escorted by the client’s family and said stitches in the birth canal with GIP0A0 spontaneous post partum labor. when the assessment was carried out on June 2, 2023 in the lotus 2 room at 09.00 the client complained of stitching pain in the birth canal and intermittent pain and the milk had not come out, the client had never experienced breastfeeding.

At the time of assessment, the client complained that a little milk was coming out and said he did not understand how to expel breast milk. The breasts do not feel tight, the breasts are clean, there are no lesions or redness. The general condition of the client looks moderately ill with composments is awareness, blood pressure 130/80 mmHg, temperature 36.5°C, pulse 86x/minute, respiration 20x/minute. The client still looks weak and says he can’t breastfeed his baby.

Drug therapy given to clients is Ampicillin with zigma giving 3x500 mg and Gastrul with zigma giving 3x ½ tablets by oral administration, both are given in the morning, afternoon and evening.

Table 1. Supporting Examination

<table>
<thead>
<tr>
<th>Support Type</th>
<th>Results</th>
<th>Normal Value and Result Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology Complete Peripheral Blood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hemoglobin</td>
<td>14.9</td>
<td>12~15 gr/dl</td>
</tr>
<tr>
<td>Leulosit</td>
<td>13.6</td>
<td>4.4~11.3 ribu/mm³</td>
</tr>
<tr>
<td>Trombosit</td>
<td>316</td>
<td>150-450 ribu/mm³</td>
</tr>
<tr>
<td>Hematokrit</td>
<td>46</td>
<td>35~47 %</td>
</tr>
<tr>
<td>Eritrosit</td>
<td>5.3</td>
<td>4.1~5.1 juta/UI</td>
</tr>
<tr>
<td>MCV</td>
<td>88</td>
<td>80~96 fl</td>
</tr>
<tr>
<td>MCH</td>
<td>28</td>
<td>26~33 pga</td>
</tr>
</tbody>
</table>

Source: Rekamedis

Diagnosis

The nursing diagnoses were enforced based on the results of data analysis and data grouping in accordance with the Indonesian nursing diagnosis standards issued by the Indonesian National Nurses Association (PPNI) edition 2 revision II in 2017.

Table 2. Nursing Diagnosis

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Etiologi</th>
<th>Problem</th>
<th>Diagnostic number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective data</td>
<td>Physiological changes</td>
<td>Breastfeedi</td>
<td>(D.0029)</td>
</tr>
</tbody>
</table>
1. The client says that only a little milk comes out.
2. The client says he doesn't understand how to launch AS.

**Objective data:**
1. The breasts do not feel tight, the breasts are clean, there are no lesions or redness.
2. BP : 130/80 mm Hg
3. Temperature: 36.5°C
4. Pulse : 86 x/minute
5. Respirasi : 20x/minute

From the table above it can be taken that the nursing diagnosis for the client is ineffective breastfeeding (D.0029) related to the inadequacy of the oxytocin reflex as evidenced by the client saying that only a small amount of milk comes out and the client says he does not understand how to express milk, the breasts do not feel tight, there is no clean breasts lesions and redness, blood pressure 130/80 mmHg, temperature 36.5°C, pulse 86x/minute, respiration 20x/minute.

**Intervention**

<table>
<thead>
<tr>
<th>Diagnosis, Objectives and Outcome Criteria</th>
<th>Intervention</th>
<th>Rational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ineffective breastfeeding (D.0029) related to inadequate oxytocin reflex</td>
<td>1. Identification of readiness and ability to receive information</td>
<td>1. Understand the patient's ability to receive information</td>
</tr>
<tr>
<td>Expenditure of breast milk increases with the Outcome Criteria:</td>
<td>2. Identify the purpose or desire of breastfeeding</td>
<td>2. Understand the patient's desire to breastfeed</td>
</tr>
<tr>
<td></td>
<td>3. Provide health education materials and media</td>
<td>3. The media facilitates the delivery of health education materials</td>
</tr>
<tr>
<td></td>
<td>4. Schedule health education as agreed</td>
<td>4. So that the health education schedule is in accordance with the wishes of the patient</td>
</tr>
<tr>
<td></td>
<td>5. Support mothers to increase their confidence in breastfeeding</td>
<td>5. So that the patient is confident in breastfeeding</td>
</tr>
<tr>
<td></td>
<td>6. Provide breastfeeding counseling</td>
<td>6. Providing an explanation will increase the client's knowledge of pain relief</td>
</tr>
</tbody>
</table>
attachment to the mother's breast increases.

5. Mother's trust increases.

7. Explain the benefits of breastfeeding for mother and baby

8. Teach the four feeding positions and proper latch

9. Teach post partum breast care (eg breast massage, massage, oxytocin).

7. So that patients understand the benefits of breastfeeding for mothers and babies

8. So that mothers understand breastfeeding position and attachment correctly

9. So that mothers understand how to care for post partum breasts

**Implementation**

The researcher conducted fellowship care according to a predetermined fellowship plan according to Indonesian engagement intervention standards. The implementation is to identify the readiness and ability to receive information so that the client appears to want to know information that the client does not know, identify the purpose or desire to breastfeed so that the client appears to want to breastfeed. Babies with breast milk, providing health education materials and media with the result that researchers have prepared health education materials about acupressure therapy and post partum mothers, scheduling health education according to the agreement with the results the client said he wanted to schedule today, supporting mothers increasing confidence in breastfeeding with results the client does not seem confident in breastfeeding because the milk does not come out, provides breastfeeding counseling with the client occasionally how to facilitate breastfeeding, explains the benefits of breastfeeding for mother and baby with the result that the client says he already understands the benefits of breastfeeding for mother and baby, prohibits the four positions of breastfeeding and attachment with so that the client is right in saying that he knows how to breastfeed properly, prohibits post partum breast care by giving oxytocin massage therapy with the result that the client says he does not know how to care for the breast and the researcher provides oxytocin massage therapy.

**Evaluation**

At the first implementation, the client said that the body felt more relaxed after the massage, the client said that only a little milk came out, the client said that sometimes the baby cries when being breastfed, the client's face looks more relaxed, the breasts don't feel tight, the breasts are clean, there are no lesions and redness, blood pressure 120/80 mm Hg, temperature 36.6°C, pulse 86x/minute, respiration 20x/minute. The progress of the client on the second day is shown by the client saying the breast still does not feel full, the client says when one breast is breastfed the other breast does not come out, the patient says his child is given formula because he is afraid of not enough milk, the breast looks clean, there are no lesions and redness, nipples protrude, breasts feel full, nipples look clean, blood pressure 130/80 mmHg, temperature 36.0°C, pulse 86x/minute, respiration 20x/minute. On the third
day, the client's development shows positive progress as evidenced by the client's noticing that her milk comes out a lot through the nipples, the patient says her breasts feel tight and full before breastfeeding, the patient says her baby is breastfeeding for about 30 minutes, milk appears to come out through the nipples, the breasts look tight, The milk is clear white in color, the breasts look clean with no lesions, blood pressure 130/80 mmHg, temperature 36.6°C, pulse 86x/minute, respiration 20x/minute.

Discussion

Assessment is the initial stage of the engagement process and is a systematic process of collecting data from various data sources to evaluate and identify the client's health status (Sihaloho, 2020). At the time of reviewing the client Mrs. W complained that only a little milk came out. Blood pressure : 130/80 mmHg, N:86x/minute, R:20 x/minute, S:36,5°C. According to (Purnamasari & Hindiarti, 2020) usually post partum mothers with problems expelling milk experience complaints that milk does not come out, even when recovering clients complain that only a little milk comes out.

The researcher found several problems which were then formulated into the diagnoses that were disclosed, but not all the diagnoses that were revealed were contained in the theoretical review that emerged in the diagnoses that were disclosed during the study. The diagnosis that emerged in Mrs. W's case was Ineffective Breastfeeding (D.0029) Associated with Inadequate Oxytocin Reflexes.

There is a theoretical gap between the diagnosis according to the theory and at the time of conducting the assessment, namely where the diagnosis according to the theory was not found at the time of the assessment, there were 5 diagnoses, namely, acute pain with major minor symptoms found the client looked grimacing, the client was alert to the position avoiding pain, restlessness, increased pulse rate, difficulty sleeping (Nislawaty et al., 2021). Disturbances in sleep patterns with major minor signs and symptoms were found by clients complaining of difficulty sleeping and complaining of decreased activity ability. Knowledge deficit with major minor signs and symptoms was found to show behavior that was not as recommended, indicating a wrong perception of the problem. Risk for infection in presence of risk factors for chronic disease, effects of invasion procedures, malnutrition, inadequate primary defenses, inadequate secondary defenses (Setianingrum, 2018). The diagnosis that appeared on Mrs. W, namely ineffective breastfeeding related to the inadequacy of the oxytocin reflex as evidenced by only a small amount of milk coming out, the breasts feeling hard. Decreased production and expenditure of breast milk in the first days after delivery can be caused by a lack of stimulation of the hormones prolactin and oxytocin which play a very important role in the smooth production and release of breast milk (Rahayu & Yunarsih, 2018).

To help overcome this problem, researchers carried out nursing implementation with reference to nursing education nursing interventions (I.12393) with a focus on implementation, namely oxytocin massage therapy which is a non-pharmacological therapy. The evaluation results of giving oxytocin massage therapy can increase the consistency of
breastfeeding. It was found that there were significant differences in clients who were given oxytocin massage therapy in facilitating milk production. Evidenced by Mrs. W saying that a lot of milk came out through the nipples, the patient said her breasts felt tight and full before being fed, the patient said her baby was breastfeeding for about 30 minutes, the milk seemed to come out through the nipples, the breasts looked tight, the milk was clear white, the breasts looked clean and not there are lesions, blood pressure 130/80 mmHg, temperature 36.6°C, pulse 86x/minute, respiration 20x/minute.

The intervention oxytocin massage is equally useful in the lactation process, especially in the first days after birth because these two interventions help maximize the release of lactation hormones such as prolactin and oxytocin (Purnamasari & Hindiarti, 2020). Milk production that is less and slow to come out can cause mothers not to give enough milk to their babies. In addition to the prolactin hormone, the lactation process also depends on the hormone oxytocin which is released from the posterior pituitary in reaction to nipple sucking. Oxytocin affects the myoepithelial cells that surround the mammary alveoli, so that the alveoli contract and secrete milk that has been secreted by the mammary glands, this oxytocin reflex is influenced by the mother's soul. If there is anxiety, stress and doubt that occurs, then breastfeeding can be hampered. In addition, mothers must pay attention to the factors that influence the success of oxytocin massage, namely listening to the baby's voice which can trigger flow which shows how milk production can be influenced psychologically and environmental conditions when breastfeeding, self-confidence so that there is no perception of insufficient milk supply, bringing closer yourself with the baby, relaxation, namely exercises that are relaxing and calming such as meditation, yoga, and progressive relaxation can help restore nervous and hormonal imbalances and provide natural calm, touch and massage when breastfeeding, husband and family support, drinking coffee because it contains caffeine, warms the breast, stimulates the nipple by pulling and rotating the nipple slowly with the fingers (INTAN, 2018).

According to (Indrayani & Anggita, 2019) this oxytocin massage intervention has an influence on milk production so that it can be a solution for postpartum mothers who experience problems with milk production and milk expenditure. The results obtained from this study were that oxytocin massage had an effect on milk production after the intervention was carried out, because mothers who had oxytocin massage felt more relaxed because of the massage treatment on the back area which stimulated many nerve points which stimulated the rapid release of oxytocin. The results of this study are in (Nufus, 2019) entitled The Effect of Oxytocin Massage on Expulsion of Colostrum in Post Partum Mothers in the Midwifery Room of the Muhammadiyah Bandung Hospital, showing that the colostrum spending time in the treatment group was an average of 5.8 hours, while the group spent control is an average of 5.89 hours.

Based on the theory and research above, the researchers argue that doing oxytocin massage will provide a relaxing, calming, and comfortable effect on the mother so that it will increase the hormone oxytocin which has an impact on increasing milk production. The duration of the oxytocin massage has a significant effect on the production of breast milk
produced, this is evident in the mean amount of milk production in the intervention group, which increased significantly compared to the control group. The smooth production of breast milk is strongly influenced by several factors including age, parity, nutrition, emotional, psychological, physiological mother and others. This was evident from the oxytocin massage performed according to the procedure in the intervention and control groups, but milk production was still not smooth and conversely there were some respondents who had oxytocin massage according to the procedure but milk production was smooth.

Conclusion

The evaluation results of acupressure therapy are consistently effective for increasing milk production. It was found that there were significant differences in clients who were given oxytocin massage therapy in facilitating milk production. Evidenced by Mrs. W saying that a lot of milk came out through the nipples, the patient said her breasts felt tight and full before being fed, the patient said her baby was breastfeeding for about 30 minutes, the milk seemed to come out through the nipples, the breasts looked tight, the milk was clear white, the breasts looked clean and not there are lesions, blood pressure 130/80 mmHg, temperature 36.6oC, pulse 86x/minute, respiration 20x/minute.

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