Application of Acupressure Therapy to Increase Breast Milk Production in Spontaneous Post Partum Mothers

Iif Taufiq El Haque¹, Elis Roslianti¹, Ade Fitriani¹, Indah Dwi Lestari¹
¹STIKes Muhammadiyah Ciamis, West Java, Indonesia

Correspondence author: Indah Dwi Lestari
Email: indahdlestari29@gmail.com
address: Jln. KH. Ahmad Dahlan No. 20 Ciamis, Jawa Barat

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ABSTRACT

Introduction: Acupressure is a non-pharmacological technique that can increase breast milk production, which is useful for increasing body stamina, improving blood circulation, reducing pain, reducing stress, or calming the mind. Acupressure serves to increase the hormone oxytocin, which can calm the mother, so that breast milk comes out by itself. Objective: This case study is to determine the effectiveness of acupressure therapy in increasing breast milk production in spontaneous postpartum clients. Method: This study uses a case study design with a nursing care approach that focuses on nursing interventions. The research was conducted in Teratai Room 2, RSUD Banjar City, from June 2, 2023, to June 4, 2023. The participants in this study were Mrs. W, 32 years old, a woman who complained that her milk production was low. The nursing process is focused on the main problem, namely ineffective breastfeeding. Objective data and subjective data are used as references on a regular basis to obtain results when an assessment is carried out. The instruments used were leaflets, observation sheets, and all the tools used in physical examinations. The focus of the intervention was the application of acupressure therapy to increase breast milk production in spontaneous postpartum mothers. Result: This case study is supported by objective 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 or redness, blood pressure 120/80 mmHg, temperature 36.6°C, pulse 86 x/min, respiration 20 x/min. subjective data, namely the recognition of patients complaining of very little milk expenditure. Conclusion: The intervention is thought to be effective against the effect of acupressure therapy on increasing milk production in postpartum patients. Theoretically, this research does not conflict with previous research, so it can be used as a reference in future research. Meanwhile, clinically, interventions made for ineffective breastfeeding problems can be an alternative to eliminating nursing problems in hospitals, health centers, or other health clinics.

Keywords: acupressure, post partum, milk production
Introduction

Postpartum is the period after childbirth, which can also be called the puerperium, which is the period after childbirth which is needed for the recovery of the uterine devices which lasts 6 weeks. Postpartum is a period of 6 weeks from the time the baby is born until the reproductive organs return to their normal pre-pregnancy state (Jannah, 2020).

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 deal with 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).

Getting Mother's Milk (ASI) is the right of every baby, and breastfeeding is an activity that creates its own welfare, allowing mothers to breastfeed their babies because breast milk is good for the growth and development of babies (Febriana, 2022). To reduce infant mortality and mortality, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) recommend exclusive breastfeeding for babies for 6 months and continued breastfeeding until the baby is two years old. Start breastfeeding in the first hour of life, do not add additional food or drinks including water, breastfeed according to the baby's needs, and do not use bottles or pacifiers (Ene et al., 2022).

Based on WHO data, that only 44% of newborns in the world get breast milk within the first hour from birth, there are still a few babies under the age of 6 months who are exclusively breastfed (Yani et al., 2022). Coverage of exclusive breastfeeding in South Asia is 47%, Latin America and the Caribbean 32%, East Asia 30%, Central Africa 25% and developing countries 46%. Overall, less than 40% of children under 6 months of age are exclusively breastfed (WHO, 2019). This is not in line with WHO's fifth target in 2025, which is to increase exclusive breastfeeding in the first 6 months by at least 50% (Umbarsari, 2017).

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 (Sari, 2023). 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%) (Kementerian Kesehatan Republik Indonesia et al., 2021).
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 (Wulandari et al., 2018)

Management of postpartum mothers to increase milk production includes breast care or breast care, breast exercise, breast massage and acupressure therapy. 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, acupressure therapy, marmet 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 (Ainun Sajidah et al., 2021).

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 which 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 blockage of the milk production channels so as to facilitate the release of breast milk. Apart from that, another way to deal with irregular milk production is by doing acupressure therapy.

Acupressure is a non-pharmacological technique that can increase milk production in mothers who are not proficient at producing breast milk, with healing knowledge by pressing, massaging, massaging parts of the body to activate the circulation of vital energy
or Ci, which is beneficial for increasing body stamina, improving blood circulation, reducing pain and reduce stress or calm the mind, acupressure functions to increase the hormone oxytocin which can calm the mother, so that the milk comes out by itself. Acupressure therapy can increase milk production by reducing blockages in the milk production ducts thereby facilitating the release of milk (Ene et al., 2022).

Research conducted by (Ramadani et al., 2019) with the title Acupressure Therapy and Breast Care on the Smooth Expulsion of Breast Milk in Postpartum Mothers, proves that after acupressure therapy 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 acupressure therapy and health counseling about post partum mothers and the benefits of acupressure therapy to facilitate breastfeeding. Which was carried out on Friday, June 2, 2023 in the lotus room 2 of the Banjar City Hospital, for 1 day and 2 days followed by 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 Acupressure Therapy to Increase Breast Milk Production in Spontaneous Post Partum Mothers". The difference between this study and the previous results was that by intervening acupressure therapy in spontaneous postpartum mothers to increase milk production, the researchers intended to evaluate the management of the application of acupressure therapy to spontaneous postpartum mothers to increase milk production.

**Objective**

This case study is to see the effectiveness of acupressure therapy to increase breast milk production in spontaneous postpartum clients.

**Method**

This study uses a case study design with a nursing care approach that focuses on nursing interventions. This case study is a case study to explore a problem of nursing care for clients who experience postpartum at the Banjar Regional General Hospital in 2023. The research was conducted in the Teratai 2 Room of the Banjar City Hospital from June 2 2023 to June 4 2023. The subjects used in the this study, namely the client Mrs. W who experienced ineffective breastfeeding problems.

The nursing process is focused on the main problem, namely ineffective breastfeeding. The data collection technique used by the author is to conduct interviews to collect identity data and ask for major complaints and examine the client's medical history. Other techniques include physical examinations, documentation studies and observations to look for changes or things to be examined. The observation was carried out in stages over a period of about 1 day at the Banjar Regional General Hospital and 2 days via WhatsApp communication.
Objective data and subjective data are used as a reference on a regular basis to obtain results when an assessment is carried out. The instruments used were leaflets, observation sheets and all the tools used in physical examinations. The focus of the intervention was the application of acupressure therapy to increase breast milk production in spontaneous post partum mothers. Acupressure therapy is a therapy that is performed by pressing several points on the body. This therapy can stimulate the release of endorphins, block pain receptors and stimulate the release of the hormone oxytocin, and able to stimulate prolactin production to increase milk production.

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 comosmentis 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. The following are the results of the client’s laboratory tests:

<table>
<thead>
<tr>
<th>Support Type</th>
<th>Results</th>
<th>Normal Value and Result Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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/ul</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>

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.
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 2015.

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>Breastfeeding is not effective</td>
<td>(D.0029)</td>
</tr>
<tr>
<td>1. The client says that only a little milk comes out.</td>
<td>Lactation ↓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The client says he doesn't understand how to launch AS.</td>
<td>Estrogen hormone ↓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Prolactin increases ↓</td>
<td>Milk formation ↓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Narrowing of the ductus intiverus ↓</td>
<td>Swollen breasts ↓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Retensi ASI ↓</td>
<td>Breast milk does not come out</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

In this planning stage, the researcher planned according to the theory regarding the problem of breastfeeding that was not effective with the intervention used was breastfeeding education (I.12393) where the first thing to do was to identify readiness and ability to receive information, identify goals or desires for breastfeeding, provide health education materials and media, schedule health education according to the agreement, supporting mothers to increase their confidence in breastfeeding, providing breastfeeding counseling, explaining the benefits of breastfeeding for mothers and babies, teaching the four breastfeeding positions and proper attachment and teaching post partum breast care by providing acupressure therapy. Researchers focused more on acupressure therapy interventions which is a non-pharmacological therapy.
Implementation

Researchers carried out nursing care in accordance with nursing plans that had previously been determined according to Indonesian nursing intervention standards. The implementation carried out was identifying readiness and ability to receive information with the result that the client seemed to want to know information that the client did not know, identified the purpose or desire of breastfeeding with the result that the client seemed to want to breastfeed her baby with breast milk, provided health education materials and media with the results that the researcher had prepared material for health education about acupressure therapy and post partum mothers, scheduling health education according to the agreement with the results the client says he wants to be scheduled today, supporting mothers to increase confidence in breastfeeding with the results the client appears to be insecure in breastfeeding because milk does not come out, providing breastfeeding counseling with results the client occasionally asks about 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, teaches the four positions of breastfeeding and attachment correctly with the result that the client says he already knows how to breastfeed properly. teaching post partum breast care by providing acupressure therapy with the results that clients say they don't know how to care for breasts and researchers provide acupressure therapy. 

Obstacles in carrying out nursing care in assessing progress records are not perfect 24 hours. This is due to time constraints. In this case the researcher works with clients and families to participate in carrying out nursing actions.

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

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. In line with (Irfani, 2021) opinion, usually post partum mothers with problems with expressing milk, experience complaints that milk does not come out, even when the study is done, clients complain that only a little milk comes out.

Researchers found several problems which were then formulated into nursing diagnoses, but not all nursing diagnoses contained in the theoretical review appeared in the nursing diagnoses found during the assessment. 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 solve this problem, researchers carried out nursing implementation with reference to nursing educational nursing interventions (I.12393) with a focus on implementation, namely acupressure therapy which is a non-pharmacological therapy. The results of the evaluation of the administration of acupressure therapy are expected to increase the consistency of breastfeeding. It was found that there were significant differences in clients who were given acupressure therapy in expediting milk production. It was proven by Mrs. W who routinely performed acupressure therapy after 4 days. Breast milk production increased and continued independently at home without going out.

The mechanism of cupping stimulates an increase in morphine known as endorphins in the body, a comfortable, calm and relaxed atmosphere will bring endorphins through proopiomelanocortin (POMC) which acts as a pain reliever and controls excessive corticotropin releasing factor (CRF) (Pertiwi, 2018).

This positive response through the hypothalamus-pituitary adrenaline (HPA) pathway will stimulate the hypothalamus to reduce CRF secretion and then
adrenocorticotropic hormone (ACTH), while the adrenal medulla will reduce catecholamine secretion, peripheral resistance and cardiac output reduce the decrease in blood pressure. Therefore the release of the hormone oxytocin stimulates the let down reflex so that the milk ejection process occurs automatically to produce milk from the alveoli and lactiferous ducts (Anggraeni et al., 2021).

The acupressure technique is done gently by pressing 1/3 of the nail with the thumb, forefinger and middle finger together in a fist, rotating is done in the wrist and ankle area, tapping on the organ meridian points, and pulling to pull the fingers. or leg, at the median points CV17, SI1, ST16, ST18, LI4, ST36, SP6 with regular administration once a day for 5-10 minutes can be done by anyone who has received information or training about acupressure from health workers or from complementary staff or acupressure therapists by positioning the client to be able to stand or sit should be relaxed and as comfortable as possible to do the massage with attention to contraindications to giving acupressure, namely medical emergencies in the mother, just finished surgery around the meridian point area, there is a lump in the place of the meridian point, malignancy of the disease sexually transmitted, on anticoagulant medication or has a history of blood clotting disorders in the mother (Ashari & Kusmiyati, 2022).

Indications for giving acupressure can be to improve blood circulation and relieve breast pain, hippo lactation and mastitis, regulate mammary glands and lactation, reduce headache pain, increase energy and for relaxation, insomnia, dizziness and milk inflow, stop pain and soothe (Masdinarsah, 2019).

Acupressure is a non-pharmacological technique that can increase milk production in mothers who are not proficient at producing breast milk, with healing knowledge by pressing, massaging, massaging parts of the body to activate the circulation of vital energy or Ci, which is beneficial for increasing body stamina, improving blood circulation, reducing pain and reduce stress or calm the mind, acupressure functions to increase the hormone oxytocin which can calm the mother, so that the milk comes out by itself. Acupressure therapy can increase milk production by reducing blockages in the milk production ducts thereby facilitating the release of milk (Ene et al., 2022).

Research conducted by (Ramadani et al., 2019) with the title Acupressure Therapy and Breast Care on the Smooth Expulsion of Breast Milk in Postpartum Mothers, proves that after acupressure therapy can help express milk in postpartum mothers with the result that the milk released experiences an increase in milk production.

Conclusion

The results of the evaluation of consistently effective acupressure therapy for increasing milk production. It was found that there was a significant difference in clients who were given acupressure therapy in expediting milk production. It was proven by Mrs. W who routinely carried out acupressure therapy after 4 days. Breast milk production increased and continued independently at home without going out.
Acknowledgement
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