Review Article: Narrative Review

THE EFFECT OF OKETANI MASSAGE ON BREASTFEEDING MOTHERS WITH BREAST MILK DAMS: A NARRATIVE REVIEW

Enny Nahumuri 1*, Maridana Ahmad 1, Aryadi Arsyad 2, Nur Aliya Arsyad 1

1 Midwifery Studies Program, Graduate School of Hasanuddin University, Makassar, Indonesia
2 Faculty of Medicine, Hasanuddin University, Makassar, Indonesia

*Correspondence:
Enny Nahumuri
Midwifery Studies Program, Graduate School of Hasanuddin University, Makassar, Indonesia
Postgraduate Program, Hasanuddin University Makassar. Jln. Perintis Kemerdekaan KM.10 Makassar 90245
Email: nahumurye20p@student.unhas.ac.id

Abstract
At the beginning of labor, the pain experienced after childbirth often makes the mother lazy to breastfeed her baby. Factors that affect failure in the process such as swollen breasts, mastitis, nipples, breast milk have not come out, and improper breastfeeding techniques. In the postpartum period, if the baby has not suckled and the breast glands are not emptied ideally, there will be a dam of milk, heat and hard, pain when groaned, nipples can flatten so that it can take the baby to suckle.

This study aimed to find out the effect of Oketani massage on breastfeeding mothers with breast milk dam. This research design is a narrative review to find and review articles from databases and theories that are descriptive. Search articles using databased ScienceDirect by entering the keyword "Oketani message, breastfeeding, milk production" obtained nine reports based on the criteria that have been set. Literature review method by filtering on the Mendeley website based on inclusion criteria, then collected and made a summary of the journal including the name of the researcher, year of publication of the journal, research title, method, and overview of results or findings. An article search by entering keywords found 39 relevant articles; after filtering, nine articles were reviewed and met the inclusion criteria; it is reported that the Oketani message will make the breasts softer, make the areola and nipples more elastic, making it easier for the baby to suckle. Breast milk flow becomes smoother because of pressure on the alveoli. The Oketani massage technique has eight steps, seven of which are in the retro mammary and one on the right and left sides of the breast (the areola area containing the myoepithelium). An Oketani massage performed for 15-20 minutes has an effect on nursing mothers with breast milk dams.

Keywords: Oketani Massage, Breastfeeding Mother, Breast Milk Dam.

INTRODUCTION
Breast milk is the best food for the growth and development of the baby. In addition, breast milk has excellent cognitive, sensory, and motor benefits and protects against infections and chronic diseases. Breast milk production is influenced by hormonal factors (prolactin and oxytocin), food intake, maternal...
psychological condition, breast care, frequency of breastfeeding of the baby, and consumption of drugs/contraceptives (Daud et al., 2019; del Ciampo & del Ciampo, 2018; Lönnertal, 2016; Lyons et al., 2020; Paduraru, 2018; Yeung et al., 2020).

The hormone oxytocin is located in the hypothalamus, secreted by the pituitary gland at the brain's base. The chemistry of oxytocin is classified as a peptide containing nine amino acids. According to biological classification, oxytocin is a neuropeptide, acting as a hormone and organic compound that signals the brain. The hormone oxytocin is also called the love hormone because of its role. The effects of oxytocin on behavior and emotional response are also seen in building calmness, trust, and stability in psychology. In addition, oxytocin can improve the quality of love relationships, including wisdom, strength, and health. (Afshariani, 2014; Dib et al., 2020; Lestari et al., 2018; Nurianti et al., 2020; Sridani et al., 2019; Susianti & Usman, 2019).

Breast milk is produced by the cell alveolus, which is secreted by the hormone prolactin and requires the hormone oxytocin to excrete it. Oxytocin is affected by the mother's psychological condition. If the mother feels calm, comfortable, and happy, hormones will overflow, and breast milk will flow smoothly. The stimulation of the baby's suction during breastfeeding will continue to the hypothalamus, which produces the hormone oxytocin. Next, oxytocin will spur the myoepitel around the alveolus to contract and secrete breast milk. (Anggorowati et al., 2017; Emilda & Juliastuti, 2020; Erickson et al., 2020; Hidayati & Hanifah, 2019; Sumiaty et al., 2020; Uvnas-Moberg et al., 2020).

At the beginning of labor, the pain experienced after childbirth often makes the mother lazy to breastfeed her baby. Factors that affect failure in the process such as swollen breasts, mastitis, nipples, breast milk have not come out, and improper breastfeeding techniques. In the postpartum period, if the baby has not suckled and the breast glands are not emptied, there will be a dam of milk, heat and hard, pain when groaned, and nipples can flatten so that it can take the baby to suckle.

The impact that will be caused if the breast milk dam is not resolved is that there will be mastitis and breast abscess. Mastitis is an inflammatory or breast infection where the symptoms are hard breasts, reddening, and pain can be accompanied by fever >38 °C. In contrast, breast abscess is a follow-up complication after mastitis, where there is a buildup of pus in the breast. In addition, the impact on the baby's nutritional needs will be less met because of the lack of intake obtained by the baby (Aulya & Supriaten, 2021).

Treatment of pharmacological treatment in cases of breast swelling can be given symptomatic therapy to reduce the pain, such as paracetamol or ibuprofen. While non-pharmacological efforts to reduce breast swelling can be fulfilled by improving the way breastfeeding, conventional breast care (hot compresses combined with massage), hot and cold compresses alternately, and oketani massage.

Based on the background above, researchers are interested in conducting research in the form of literature studies related to the influence of oketani massage on nursing mothers with breast milk dams.

**DEVELOPMENT**

Using literature studies, article search using ScienceDirect database by entering the keyword "oketani massage, breastfeeding, milk production" obtained as many as 39 articles. After filtering the year of publication, namely 2017-2021, 24 articles were obtained. Furthermore, abstract filtering, full text, open-access type of research, and duplication obtained 18 articles.

Then the final process is to read and choose eligible articles based on the criteria obtained for nine relevant articles (Table 1). Articles are evaluated based on inclusion criteria and exclusion criteria. The inclusion criteria were the articles related to Oketani Massage, year of publication 2017-2021, national publications and internationals, the National Journal has ISSN, the articles using...
Breast milk dams occur due to narrowing the ductal lactiferous by glands that are not emptied ideally or abnormalities in the milk puting. As a result, swollen breasts usually occur after birth on the third or fourth day. Usually, the breast that experiences breast milk dam will look edema, nipples tight, and breast milk does not come out. Breast milk dam in mothers primipara can be caused by several factors, namely imperfect breast emptying, baby suction factor, putting milk sunset, and putting milk too long. This can be prevented through improvements in breastfeeding and breast care. (Indah & Wulandari, 2019; Indahsari & Chotimah, 2017; Juliani & Nurrahmaton, 2020; Maryati & Sari, 2018; Oriza, 2019; Sarlis, 2020)

The nine willing and qualified articles concluded that okitami massage in helping reduce daily stress boosts the immune system, and generally makes people feel healthier and more relaxed. In addition, massage has been shown to aid in naturally releasing the hormones prolactin and oxytocin. According to Dr. Kerstn Uvnas Moberg, author of _The Oxytocin Factor_, massage is one of the best ways to release oxytocin into the body.

Massage will provide a sense of comfort and relaxation, a condition needed by breastfeeding mothers. Massage in nursing mothers is overgrowing today and is supported by research data. One of the breast massages is the Oketani massage. Satomi Oketani developed this massage in Japan. Oketani massage can provide comfort and relieve pain in postpartum mothers. The mother’s body becomes more relaxed. Oketani massage will make the breasts softer, making the areolas and nipples more elastic and more accessible for the baby to suckle. The flow of breast milk becomes smoother because there is an emphasis on the alveolus. Oketani’s massage technique has eight steps, seven in the retro mammary and one on the right and left sides of the breast (the areola area that contains the myoepitel. This oketane massage is done for 15-20 minutes. (ANDANI, 2019; Buhari et al., 2018; Machmudah, 2017; Sari & Syahda, 2020)

Oketani massage aims to prevent and overcome the problem of postpartum mothers with breastfeeding problems with painless massage. Oketani massage can stimulate the strength of the pectoralis muscle to increase breast milk production and make the breasts softer and elastic. The characteristics of octane massage are improving the quality of breast milk, can improve the deformity of milk putting, such as inversion or flat putting, and can prevent wounds on the placating and mastitis(Astar & Machmudah, 2019; Astari, 2019; Machmudah et al., 2018; Septiani Nurhikmah & Nurdianti, 2020; Sudirman & Jama, 2019).
### Table 1. Extraction of Research Results

<table>
<thead>
<tr>
<th>Authors/Year</th>
<th>Title</th>
<th>Type of Research and Sample</th>
<th>Data Analysis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Machmudah et al., 2019)</td>
<td>Oketani Massage Reduces Cortisol Hormone Levels Among Breastfeeding Mothers in the City of Semarang</td>
<td>Quasi-experiments with post-test design with a control group. 40 postpartum mothers.</td>
<td>Independent T-test</td>
<td>Oketani massage works as a pain reliever, providing comfort and relaxation for the postpartum mother. This condition will lower levels of the hormone cortisol and increase blood flow to the breast.</td>
</tr>
<tr>
<td>(Tasnim et al., 2019)</td>
<td>Difficulties in breastfeeding: Easy solution by Oketani breast massage</td>
<td>Latitude cut study. 98 breastfeeding mothers who had breast problems</td>
<td>Chi-squared test</td>
<td>Oketani massage is a helpful technique for building confidence and increasing breast milk secretion in mothers who have difficulty breastfeeding.</td>
</tr>
<tr>
<td>(Jama &amp; S, 2019)</td>
<td>Effectiveness of Oketani Massage Against Breast Milk Dam in Postpartum Mother in Masyita Maternity Hospital Makassar</td>
<td>Quasi-experiments with pre-test and post-test designs. 15 postpartum mothers.</td>
<td>T-test</td>
<td>Oketani massage therapy is effectively done on postpartum mothers with breast milk dams</td>
</tr>
<tr>
<td>(Romlah &amp; Rahmi, 2019)</td>
<td>Effect of Oketani Massage on Smooth Breastfeeding and Anxiety Levels In Post-Partum Mother</td>
<td>Quasi-experiment with one group pretest-posttest design. 10 postpartum mothers.</td>
<td>Test t dependent</td>
<td>Oketani massage affects breast milk's smoothness and the postpartum mother's anxiety level.</td>
</tr>
<tr>
<td>(Mayasari, 2020)</td>
<td>The Effect of Oketani Massage on Breast Milk in Post-Partum Mother in PMB Dince Safrina</td>
<td>Quasi-experiment with post-test design only design with the control group. 30 postpartum mothers.</td>
<td>Mann Whitney Test</td>
<td>Oketani massage can be applied as one of the alternatives to help mothers accelerate breastfeeding and prevent problems during breastfeeding, such as flat nipples and breast milk dams.</td>
</tr>
<tr>
<td>(Yuliati et al., 2017)</td>
<td>The Impact of Combination of Rolling and Oketani Massage on Prolactin Level and Breast Milk Production in Post-</td>
<td>Experiment with pretest-posttest control group design. 36 breastfeeding mothers.</td>
<td>Chi-Square Independent T-test, Mann-Whitney Test</td>
<td>There is a significant influence of the combination of rolling and Oketani massage on the increase in prolactin levels and breast milk production.</td>
</tr>
</tbody>
</table>
Cesarean Section
Mothers

(Mahmudah et al., 2018) Increasing Oxytocin Hormone Levels in Postpartum Mothers Receiving Oketani Massage and Pressure in the GB-21 Acupressure Point
Quasi-experiment using the pre-post-test design with control Group. 40 postpartum mothers.
Independent sample T-test.
Massage can help reduce stress, boost the immune system, and generally make people feel healthier and more relaxed. In addition, massage has been shown to help increase the release of natural oxytocin.

(Machmudah et al., 2020) Improvement of Prolactin Hormone Levels on Postpartum Mothers Taken by The Oketani Massage and Pressure In GB-21 Point
Quasi-experiment with the design used is a pre-post-test design with the control group. 40 postpartum mothers.
Independent sample T-test.
Massage and pressure at the GB-21 point can increase levels of the hormone prolactin.

(Dehghani et al., 2017) Effect of Breast Oketani-Massage on the Severity of Breast engorgement
Clinical trial. 94 breastfeeding mothers.
Mann-Whitney, paired-t, independent t, Chi-square, and Analysis of Variance (ANOVA)
Massage and pressure at the GB-21 point can increase levels of the hormone prolactin.

ACKNOWLEDGMENT
Thank you to the supervisor who has directed so that the preparation of the literature can be completed.

DECLARATION OF CONFLICTING INTEREST
No conflict of interest.

FUNDING
Source of funds in the preparation of literature review from the author.

AUTHOR CONTRIBUTION
Enny Nahumuri: Contribute to finding articles, reviewing and completing literature reviews.

Mardiana Ahmad: Contribution as a supervisor involved in planning and supervising the completion of review literature.

Aryadi Arsyad: Contribution of guidance in discussing the final results of the review literature manuscript.

Nur Aliya Arsyad: Contribution is the completion of review literature.

ORCID
Enny Nahumuri: None.

Mardiana Ahmad:
https://orcid.org/0000-0002-0798-0457

Aryadi Arsyad: None.
**Nur Aliya Arsyad:**
https://orcid.org/0000-0003-1987-8780

**REFERENCES**


ANDANI, N. V. (2019). PERBEDAAN EFEK TIVITAS PIJAT OKSITOSIN DAN PIJAT OKETANI TERHADAP PRODUKSI ASI PADA IBU NIFAS DI WILAYAH KERJA PUSKESMAS YOSODADI METRO TIMUR. PERBEDAAN EFEK TIVITAS PIJAT OKSITOSIN DAN PIJAT OKETANI TERHADAP PRODUKSI ASI PADA IBU NIFAS DI WILAYAH KERJA PUSKESMAS YOSODADI METRO TIMUR.


ANDANI, N. V. (2019). PERBEDAAN EFEK TIVITAS PIJAT OKSITOSIN DAN PIJAT OKETANI TERHADAP PRODUKSI ASI PADA IBU NIFAS DI WILAYAH KERJA PUSKESMAS YOSODADI METRO TIMUR. PERBEDAAN EFEK TIVITAS PIJAT OKSITOSIN DAN PIJAT OKETANI TERHADAP PRODUKSI ASI PADA IBU NIFAS DI WILAYAH KERJA PUSKESMAS YOSODADI METRO TIMUR.


ANDANI, N. V. (2019). PERBEDAAN EFEK TIVITAS PIJAT OKSITOSIN DAN PIJAT OKETANI TERHADAP PRODUKSI ASI PADA IBU NIFAS DI WILAYAH KERJA PUSKESMAS YOSODADI METRO TIMUR. PERBEDAAN EFEK TIVITAS PIJAT OKSITOSIN DAN PIJAT OKETANI TERHADAP PRODUKSI ASI PADA IBU NIFAS DI WILAYAH KERJA PUSKESMAS YOSODADI METRO TIMUR.


ANDANI, N. V. (2019). PERBEDAAN EFEK TIVITAS PIJAT OKSITOSIN DAN PIJAT OKETANI TERHADAP PRODUKSI ASI PADA IBU NIFAS DI WILAYAH KERJA PUSKESMAS YOSODADI METRO TIMUR. PERBEDAAN EFEK TIVITAS PIJAT OKSITOSIN DAN PIJAT OKETANI TERHADAP PRODUKSI ASI PADA IBU NIFAS DI WILAYAH KERJA PUSKESMAS YOSODADI METRO TIMUR.


NURSE AND HEALTH: JURNAL KEPERAWATAN, VOL 11, ISSUE 1, JANUARY-JUNE 2022
Nahumuri, E., et al. (2022)


