



## OKETANI MASSAGE TO INCREASE BREAST MILK PRODUCTION

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**Abstract.** **Background :** The low coverage of exclusive breastfeeding nationally certainly needs more attention from the government. This happens because exclusive breastfeeding is influenced by various factors, such as factors such as age, occupation, socio-economic education and place of residence, psychosocial factors. Oketani massage is a unique breast treatment that was first popularized by Sotomi Oketani from Japan and has been applied in several countries including Korea, Japan and Bangladesh. Breast milk dams are damming of breast milk due to narrowing of the lactiferous ducts by glands that are not completely emptied or because of abnormalities in the nipples. The flow of breast milk becomes smoother because there is pressure on the alveoli. Oketani breast massage therapy releases the space between the connective tissue of the breast and the pectoralis major muscle which can increase the depth of the breast and increase its base stretch.

**Methods :** Using published databases, and the cochrane library. randomized controlled trials (RCTs), systematic reviews, or meta-analytical designs, full-text articles are available. Exclusion criteria are irrelevant topics. represent the population. article search is limited to articles published in the last 5 years and full text articles. the keywords used are words whose inclusion criteria are limited.

**Results :** postpartum mothers who are breastfeeding. Massage technique is a simple way to increase milk production in postpartum mothers. In the previous review, massage techniques to increase breast milk volume. Their treatment was started during the first 12 hours postpartum for three consecutive days, twice a day and 45 minutes per session. For nursing and midwifery practices, massage techniques can be an alternative method to increase milk production, especially in early postpartum mothers.

**Conclusion :** Oketani breast massage can be used as an easy method. This alternative method can also be recommended for mothers who suffer from breast engorgement. It is recommended to examine the effect of Oketani breast massage therapy simultaneously on breast milk quality and neonatal weight gain in mothers with breast engorgement.

Key words: Oketani, Massage

### Background

One of the indicators of a country's welfare is seen from the Infant Mortality Rate (IMR). The target by 2030 is to end preventable deaths of newborns and children under five, with all countries working to reduce the Neonatal Mortality Rate to at least 12 per 1000 KH (Live Births) and the Toddler Mortality Rate to 25 per 1000 KH (SDGs, goal-3). The World Health Organization (WHO) and the United Nations of Children's Fund (UNICEF) in the global strategy of feeding infants and children state that the prevention of infant mortality is by providing the right food, namely

exclusive breastfeeding for 6 months of life and the introduction of complementary foods (MPASI) ) that is safe and nutritious at the age of 6 months along with continued breastfeeding until the age of 2 years or more (WHO, 2020).

Data from the World Health Organization (WHO) in 2016 shows that the average exclusive breastfeeding in the world is around 38%. In Indonesia, as many as 96% of women have breastfed their children in their lifetime, but only 42% are exclusively breastfed (PAS, 2018). In 2020 WHO again presented data in the form of exclusive breastfeeding rates globally, although

there has been an increase, this figure did not increase significantly, namely around 44% of infants aged 0-6 months worldwide who received exclusive breastfeeding during the 2015-2020 period. of the 50% target of exclusive breastfeeding according to WHO. The low level of exclusive breastfeeding will have an impact on the quality and vitality of the next generation. Globally in 2019, 144 million children under five are estimated to be stunted, 47 million are estimated to be underweight and 38.3 million are overweight or obese (WHO, 2020).

The rate of exclusive breastfeeding in several regions in Indonesia is still relatively low. Based on data collected by the 2014 International Baby Food Action Network (IBFAN), Indonesia was ranked in the bottom three of 51 countries in the world that participated in the assessment of the status of infant and child feeding policies and programs (Infant-Young Child Feeding). A survey conducted by Lambantoruan (2018) in Bangun Rejo Village, Tanjung Morawa District, proves that the achievement of exclusive breastfeeding in Indonesia is still not maximized, where only 27.6% of infants are exclusively breastfed. This happens because exclusive breastfeeding is influenced by various factors, such as sociodemographic factors such as age, occupation, socioeconomic education and place of residence, psychosocial factors (husband support, family support, beliefs, desires, perceptions), pre/post natal factors (parity), type of delivery, complications, counseling) (Lumbantoruan, 2018:15).

Exclusive breastfeeding coverage in Indonesia in 2010 was 33.6%, increased to 38.5% in 2011 and 42% in 2012 and decreased in 2013 to 30.2%. The low coverage of exclusive breastfeeding nationally certainly needs more attention from the government. The promotion of breastfeeding is not a new thing, but various efforts to increase it continue to be carried out by both the government and the private sector as well as the community who care about breastfeeding, because the results of exclusive breastfeeding coverage have not reached the nationally desired target of 80%. This is due to the low achievement of the exclusive breastfeeding program in every province and district and city in Indonesia (IDHS, 2012; Ministry of Health of the Republic of Indonesia, 2013; Basic Health Research, 2013).

Mother's Milk (ASI) is one of the most important components whose production and smoothness need to be considered by prospective mothers. So many benefits that will be obtained for the mother and of course for the baby. To ensure the implementation of breastfeeding, the Government of Indonesia makes an official regulation, namely Government Regulation No. 33

of 2012 which contains a statement that babies born are entitled to breast milk without the addition of other food ingredients (excluding drugs, minerals and vitamins) until the baby enters the age of six months or referred to as exclusive breastfeeding. Even to support the success of the implementation of exclusive breastfeeding, the government has also ratified regulations related to the implementation of exclusive breastfeeding, namely the Regulation of the Minister of Health (Permenkes) of the Republic of Indonesia Number 15 of 2013 concerning Procedures for Providing Special Facilities for Breastfeeding and/or Expressing Breastmilk.

According to Manuaba (2010), breast milk dam is the damming of breast milk due to narrowing of the lactiferous ducts by glands that are not emptied completely or because of abnormalities in the nipples. Swollen breasts usually occur after delivery on the third or fourth day. Usually breasts that have breast milk dams will look oedema, nipples are tight, and breast milk does not come out (Setyo & Sri, 2011).

Pharmacologically the treatment of breast swelling can be given symptomatic therapy to reduce the pain such as paracetamol, Prof. Meanwhile, non-pharmacological efforts to reduce breast engorgement can be done by improving breastfeeding methods, conventional breast care (hot compresses combined with massage), alternating hot and cold compresses, and oketani massage.

Oketani massage is a unique breast treatment that was first popularized by Sotomi Oketani from Japan and has been implemented in several countries including Korea, Japan and Bangladesh. Sotomi explained that breastfeeding can increase the bonding between mother and baby as well as support the child's natural physical and mental growth. Oketani massage can help nursing mothers overcome difficulties while breastfeeding their babies. Oketani massage can provide comfort and relieve pain in postpartum mothers. Postpartum mother's body becomes more relaxed. This is different from conventional breast massage. Oketani massage will make the breasts softer, the areola and nipples become more elastic, making it easier for the baby to suckle. The flow of milk becomes smoother because there is an emphasis on the alveoli (Kabir & Tasnim, 2009). Macheasy and Khayatil, 2013 explained that the combination of oketani massage and oxytocin can increase milk production which is seen in the parameters of the frequency of breastfeeding babies, the frequency of defecation and urination. In 2014, Macheasy, Oketani Massage itself is well known and has been applied in developed countries such as Korea, Tokyo and Bangladesh, there are still

many countries that have experienced good results from Oketani massage that has been developed by Sotomi Oketani. Oketani massage is closely related to the effectiveness of breast massage which has been applied in developed countries in the world (Kabir & Tasnim, 2009; Macheasy et al, 2015). The application of breast massage with the Oketani massage method is effective in overcoming breast problems such as inverted nipples, breast milk does not come out and prevents postpartum mothers from damming up breast milk. Oketani massage itself is a painless massage, different from ordinary conventional massage. This oketani massage is stimulated to overcome breast problems such as inverted nipples and breast milk does not come out which will make the mother dam breast milk.

Khayati and Isworo also explained that Oketani massage can improve composition which is divided into two, namely the left side and the right side. First, a perpendicular line is drawn from the nipple towards the bust line. Using this as a baseline with an area of 105° measured on both sides and named B and C. A stands for the remaining 150° at the top of both breasts, B stands for the inside of the right side of the breast and the outside of the left breast, while C stands for the side the outer right breast and the inner side of the left breast. Both B and C are 105° on each side. Then each part A, B and C is divided into three more parts. On both left and right breasts. Part A is divided into three equal parts 1, 2, and 3 clockwise, while parts B and C are divided equally from top to bottom (1), (2) and (3). That is, B-(3) and C-(3) are close to each other and determine the boundary of B and C in the middle. B(3) and C-(3) are on the axis of the breast which supports standing protein and carbohydrates in breast milk.

Based on the above case in October 2021 at the Cibabat Hospital in the postpartum room, postpartum mothers experience more breast milk dams. I am interested in taking this case in the postpartum room at the Cibabat Hospital. Based on this phenomenon, the authors are interested in conducting research to determine the effect of Oketani massage on the incidence of breastfeeding in postpartum mothers at Cibabat Hospital.

## Methods

The type of research design used is using published databases, and the cochrane library. randomized controlled trials (RCTs), systematic reviews, or meta-analytical designs, full-text articles are available. Exclusion criteria are irrelevant topics. represent the population. article search is limited to articles published in the last 5 years and full text

articles. The keywords used are words whose inclusion criteria are limited .

The inclusion criteria of mothers recruited in this study were: 1) development of breast engorgement in the first five days after delivery, 2) a score of at least 2 out of 19 in terms of severity of breast congestion based on the Breast Congestion Checklist, 3) no use of drugs that discontinuing breastfeeding, 4) absence of mastitis, 5) body temperature < 38 ° C, 6) no inhibition of breastfeeding, 7) involvement in breastfeeding, and 8) willingness to participate in the study. In addition, the mothers' gestational age at delivery was between 37 and 42 full weeks, and they had no history of breast surgery or high-risk pregnancies and deliveries. The criteria for inclusion of newborns into the study included: 1) single and healthy status, 2) normal birth weight (2500-4000 g), 3) had suction power, and 4) no breastfeeding restrictions (eg, prematurity and lip pain). cleft palate and palate).

On the other hand, the exclusion criteria for mothers were: 1) general temperature increase to more than 38 ° C after the onset of the intervention, 2) use or need to use anti-inflammatory drugs during the intervention, 3) reluctance to continue cooperation, 4) acceptance of the intervention. previously, 5) a time interval of more than 48 hours between two Oketani breast massage sessions, and 6) mastitis infection or breast abscess during the study. In addition, newborns with certain problems, such as fever and lack of exclusive breastfeeding, were excluded from the study. The data collection instrument was in the form of a Newborn Weight Control Chart.

## Result

In the application of *evidence based case reports* for the results of the study showed an increase in the average weight of neonates in the intervention and control groups 14 and 28 days after birth. The two groups differed significantly in terms of the mean weight gain between the two study groups. In this regard, the neonatal weight gain in the group with Oketani breast massage was significantly higher than in the control group.

Oketani breast massage therapy releases the space between the connective tissue of the breast and the pectoralis major muscle which can increase the depth of the breast and increase its base stretch. This technique causes tenderness and elasticity of the breast and nipple which can increase attachment, thereby increasing lactation and reducing congestion. In addition, pressure on the areola can reduce its resistance, which increases during congestion, and also soften it by moderating the fluid between the tissues. This increases the placement of the mother's nipple in

the neonate's mouth, which can produce satisfactory suction for the neonate.

## Conclusions

In this regard, in the present study, the reason behind the increase in neonatal weight in the group that received the Oketani breast massage was the fact that the reduction of congestion in this group facilitated sucking by the newborn, and also increased the pH level of the milk producing the sweetener. milk. This encourages the baby's tendency to have more milk; In addition, the protein content of milk increases as a result of massage. Among the limitations of this study were the lack of referrals of mothers for the second stage of intervention and the need to come to their home to follow up and complete the study intervention. In addition, there was no accurate monitoring of the home self-care performed by mothers, and the researcher only trusted the responses given by the study participants. In addition, studies on partner support for breastfeeding are beyond the control of the investigators. Another limitation of this study was the non-checking of breast milk quality due to financial constraints. As the findings of this study show, Oketani breast massage can be used as an easy method.

This alternative method can also be recommended for mothers who suffer from breast engorgement. It is recommended to determine the effect of Oketani breast massage therapy simultaneously on the quality of breast milk and weight gain of neonates in mothers with breast engorgement.

## Competing Interest

The author states that there are no competing interests.

## Author's Contributions

The implementation of the *Evidence based case report* is reviewed by the supervisor, who completes, provides criticism and suggestions, as well as improvements to compile evidence based implementation reports.

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