

The Effect of Oketani Massage on Breast Milk Production in Postpartum Mothers in the Muara Rapak Health Center Area

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Abstract: Exclusive breastfeeding until the age of 6 months prevents the death of 1.3 million children under five years of age, influenced by factors that breast milk does not come out immediately, feels pain while breastfeeding, the baby is exposed to the situation and circumstances of putting mother's milk. Oketani massage provides a sense of postpartum comfort, a sense of loss of the mother, softer breasts, more elastic areola and placing makes it easier for the baby to suckle. Through videos, postpartum mothers watch independently and together with other postpartum mothers through video zoom meetings, increasing understanding of the normal oketani breast massage method. The purpose of this study was to determine the effect of oketani massage on postpartum mother's milk production through video. The research design is a quasi-experimental design with a quasi-experimental post-test only non-equivalent control group design approach. analyzed by T-test. Purposive sampling research sample, 12 pregnant women for intervention and control. The results of the Oketani Massage Test through watching videos, Paired Test Samples of the Oketani Massage Test Intervention average results/Mean 21.8333, Control Mean 25.2500 and the Sufficiency Value of Breastfeeding Intervention average or Mean 43.8333, Control Mean 38.1667. Siq Levenes breast milk adequacy test $.165 > 0.05$ variance of intervention data and homogeneous control. There is an effect of Oketani Massage intervention on the performance or adequacy of ASI Sig 2 tailed < 0.05 . The success of Oketani Massage, postpartum mothers watched the video zoom meeting continued independently. Many questions especially can be done by yourself. Mother's milk production increases, which can be seen from the assessment of the baby getting breast milk. Oketani massage really needs to be spread on other occasions so that many mothers can benefit and prevent shunting of children. Oketani massage uses videos for postpartum mothers to increase knowledge of postpartum mothers and their families about breast care in increasing milk production and breast milk growth.,

Keywords: Oketani Massage, Postpartum Mother, Breastfeeding Smooth, Videos

Introduction

The COVID-19 After delivery is complete, every mother will enter the postpartum period and must immediately prepare for another task, namely breastfeeding a new-born baby. The puerperium (puerperium/postpartum) period begins after the placenta is born and ends when the uterine organs return to their pre-pregnancy state (Anggraini, 2017). During the puerperium, two important events were encountered, namely the involution of the uterus and the lactation process, which is the entire breastfeeding process, starting from the production of breast milk to the process of the baby sucking and swallowing breast milk (Suryani, 2016). Breast milk is the most suitable food for babies because it contains nutrients needed by babies in the process of growing and developing. The importance of exclusive breastfeeding for new-borns until the age of 6 months and continuing to breastfeed until the child is 24 months old has strong evidence. Based on Government Regulation Number 33 of 2012, exclusive breastfeeding is breast milk that is given to babies from birth for six months, without adding and/or replacing with other foods or drinks (except drugs, vitamins, and minerals). Breastfeeding for 6 months of life is an ideal start for infants to improve the health and cognitive development of infants and

mothers in both developed and developing countries where it is the single most important preventive approach to save children's lives (Marshall, 2014).

According to the United Nations Children's Fund (UNICEF), exclusive breastfeeding until the age of 6 months can prevent the deaths of 1.3 million children under the age of five. Research results from the World Health Organization (WHO) state that 42% of the causes of under-five mortality in the world are caused by disease; the largest is ARI 20%, the remaining 58% are related to malnutrition which is often related to breast milk intake (Siswono, 2006 in Nurhanifah, 2013). Breast milk plays a role in cognitive, sensory, motor development and provides protection against infections and chronic diseases. Breast milk production is influenced by hormonal factors (prolactin and oxytocin), food intake, mother's psychological condition, breast care, frequency of breastfeeding, consumption of drugs/hormonal contraceptives (Kompas, 2013).

Based on Susenas data in 2015, the coverage of exclusive breastfeeding in Indonesia is still considered very low at 33.6% or about one third of babies who are exclusively breastfed from birth to six months of age. Breast milk plays a role in cognitive, sensory, motor development and provides protection against infections and chronic diseases. Breast milk production is influenced by hormonal factors (prolactin and oxytocin), food intake, mother's psychological condition, breast care, frequency of breastfeeding, consumption of drugs/ hormonal contraceptives (Kompas, 2013). Based on Susenas data in 2015, the coverage of exclusive breastfeeding in Indonesia is still considered very low at 33.6% or about one third of babies who are exclusively breastfed from birth to six months of age. The coverage of exclusive breastfeeding for infants in the city of Balikpapan in 2017-2019 is as follows: The target of exclusive breastfeeding in 2017 is 75.09%, in 2018 (78.74%) and the coverage of exclusive breastfeeding in 2019 is 78.74%, an increase from 2017 until 2019. This is due to activities that support exclusive breastfeeding, both from the private sector and support from local governments, such as the giving of ASI Award by CSR Petrosea and PT Kariangau Gapura Terminal Energi, KP competition for breastfeeding mothers, competition for lactation rooms in government agencies. Support for exclusive breastfeeding from the community is also quite encouraging with the Balikpapan ASI Care Group (KPAB and East Kalimantan Formation) as well as the formation of breastfeeding support groups in each village. (Balikpapan City Health Profile 2019).

According to Sulistyawati (2009), exclusive breastfeeding is influenced by several factors, including breast milk does not come out immediately, the mother feels pain while breastfeeding, the baby has difficulty sucking, the state of the mother's nipples and the influence of promotion of breast milk substitutes (Siregar, 2007). Failure in the breastfeeding process is often caused by the emergence of several problems, including sore nipples, swollen breasts (milk dams), mastitis and breast abscess. Breast milk dam is an increase in venous flow from lymph in the breast in order to prepare for the lactation process, it can also be due to a narrowing of the lactiferous duct in the mother's breast and can also occur if you have nipple abnormalities such as flat and inverted nipples (Admin, 2007). Breast milk dams cause fever, sore breasts, red breasts, swollen breasts and hardened breasts, this can affect the breastfeeding process (Riksani, 2012). The decrease in milk production and expenditure in the first days after giving birth 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 expenditure of breast milk. Several factors can affect the smooth production and expenditure of breast milk, namely breast care, frequency of breastfeeding, stress, illness or maternal health, consumption of cigarettes or alcohol, contraceptive pills, nutritional intake (Bobak, 2009 in Jamilah, 2014).

Breast care will stimulate the breasts and influence the hypophyses to secrete more of the hormone's progesterone, oestrogen and oxytocin. The oxytocin hormone will cause contractions in other cells around the alveoli so that milk flows down towards the nipples. 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 because the flow of milk becomes smoother because there is an emphasis on the alveoli (Kabir & Tasnim, 2009).

Based on research by (Kusumastuti, et al 2018) entitled The Effectiveness of Oketani Massage Against Breastfeeding Dam Prevention in the Kebumen II Health Centre area of Kebumen Regency on Postpartum Mothers, it was found that all postpartum mothers who did Oketani massage as many as 22 people (100%) did not experience breast milk dams, while in postpartum mothers who did not do it there were 17 people (77.3%) experiencing breast milk dam. The results of the paired t-test analysis obtained p-value = 0.021, indicating that Oketani massage in postpartum mothers is effective in preventing breast milk damming. Likewise, the research conducted by Nia Dwi Yulianti, et al (2017) entitled The Impact Of Combination Of Rolling And Oketani Massage On Prolactin Level And Breast Milk Production In Post-

Caesarea Section Mothers in Belitung Nursing Journal Volume3, issue 4, July-August 2017, the results showed that there was a statistically significant difference in prolactin levels after intervention in the experimental and control groups with a p-value of 0.035 (<0.005), and a significant difference in milk production in the two groups in post-test-1 and post-test-2 with a p value -0.000 (<0.05). Machmudah and Khayati, 2013 explained that the combination of Oketani massage and oxytocin will increase milk production, seen in the parameters of the frequency of breastfeeding babies, the frequency of defecation and urination. In 2014, Machmudah, Khayati and Isworo also explained that Oketani massage will increase the protein and carbohydrate composition in breast milk. A preliminary study conducted at one of the Independent Practice Midwives in the Muara Rapak Health Centre Balikpapan in November 2020 there were 13 people, 13 people, 9 of whom experienced breast milk dams at the beginning of the week after birth and 4 people experienced sinking nipples. The results of interviews with several independent practice midwives and midwives at the Muara Rapak Health Center that breast care with the Oketani method is still not common or common in Balikpapan, they have been doing breast care for postpartum mothers with oxytocin massage breast care, so this study was conducted by analyzing the several journals or research that oketani massage is more effective and efficient, in connection with the Covid-19 pandemic this research was conducted through a video that will be watched by postpartum mothers independently and together with other postpartum mothers through video zoom meetings in addition to introducing and increasing understanding of the oketani breast massage method can also be done normally in Balikpapan.

Based on the description above, the authors are interested in conducting research to determine the effect of Oketani Massage using Olive Oil on the smoothness of breastfeeding for postpartum mothers in the Muara Rapak Health Centre area of Balikpapan.

Method

This study used a quasi-experimental post-test only non-equivalent control group design. This study aims to determine the effect of Oketani massage on the smoothness of breastfeeding in the intervention group who watched the Oketani massage video and was given Leaflets with the control group without the Oketani massage treatment but were given the Oketani massage Leaflet. The population in this study were all postpartum mothers who came to check themselves at the Muara Rapak Health Centre in Balikpapan City from January to July 2021. The data collection technique in this study used the oketani massage observation sheet and the observation sheet to determine breast milk production. The data analysis technique used paired t-test, if the data was normally distributed and if the data was not normally distributed, then the Wilcoxon test was used with the significance level of the test results determined based on the p value < 0.05.

Results and Discussion

Table 1: Postpartum Mother's Age

	Intervention Frequency	Percent	Valid Percent
< 20 years	1	4.2	4.2
20-35 years	18	75.0	75.0
> 35 years	5	20.8	20.8
Total:	24	100.0	100.0

Table 2: Postpartum Mother's Education

	Frequency	Percent	Valid Percent
Primary school	2	8.3	8.3
Junior High School	5	20.8	20.8
Senior High School	12	50.0	50.0
College	5	20.8	20.8
Total	24	100.0	100.0

Table 3: Postpartum Mother's Parity

	Frequency	Percent	Valid Percent
Give birth 1 time	5	20.8	20.8
Give birth 2-5 times	19	79.2	79.2
Total:	24	100.0	100.0

Table 4: Paired Sample Test Correlation

	N	Correlation	Sig
Oketani Massage Intervention & Oketani Massage Control	3	.6	.642
Adequacy of Breastfeeding Intervention & Adequacy of Breastfeeding Control	1	.22	.165

The results of the correlation test between the two data or variables of Oketani Massage are known to have a correlation coefficient of .6 with a significance. value of .642 and the variable of breastfeeding adequacy is 22 with a significance value of .165, it can be said that there is no relationship between the variables.

Table 4: Paired Sample Test

	Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	Df	Sig. (2tailed)
Intervention Oketani	-	4.8889	1.4113	-6.52294	-	-	-	.034
Message – Control Oketani Massage	3.416 67	2	1	.3104 0	2.42 1	11		
Adequacy of breastfeeding intervention; adequacy of breast milk control	5.666 67	8.6480 0	2.4964 6	.17199 11.16 134	2.270	11	.044	

The results of the oketani massage test on postpartum mothers on the smoothness or adequacy of breast milk in their babies, there was an effect of octane massage intervention on the smoothness or adequacy of breast milk. Judging from Sig. 2 tailed < 0.05, then H0 is rejected

The results of the Oketani Massage test on postpartum mothers on the smoothness or adequacy of breast milk in their babies, there is an influence of Oketani Massage intervention on the smoothness or adequacy of breast milk. Seen from Sig 2 tailed 0.000 < 0.05. This study provides education to postpartum mothers with intervention by playing a video of the implementation of Oketani massage on 12 mothers. Besides that, mothers are given leaflets of the same material. Meanwhile, the control postpartum mothers were given leaflets to study. At first, the mother was confused about how to put her fingers according to the existing points. But after it was repeated several times, the mother who watched the video could do it and the result were that the mother's breasts became soft and a lot of milk came out.

According Machmudah 2017 breastfeeding a mother's psychological experience is very pleasant. There are mothers whose breast milk has not yet come out experiencing difficulties until they fail to breastfeed, causing the mother to be afraid to breastfeed, there are also sores on the nipples. Oketani massage using the breast care method for postpartum mothers does not cause pain. Oketani massage stimulates the strength of the pectoralis muscle so that it can increase milk production, the mother's breasts feel elastic and softer, making it easier for the baby to suck satisfactorily.

Oketani massage is considered a useful technique to build confidence in postpartum mothers and increase milk secretion in mothers who have difficulty breastfeeding. A multicentre study, detailed assessment of the quality, quantity of breast milk as well as infant growth and nutritional assessment is recommended (Roy et All. (2019). Oketani breast massage is effective in relieving breast tenderness and increasing milk pH and sucking speed of neonates (Cho, Jeongsug et All. 2012) Oketani massage breast care method that does not cause pain. Oketani massage will provide a sense of relief and comfort, improve the quality of breast milk, prevent natural nipple injury so as to allow mastitis but improve and reduce lactation problems in mothers due to not protruding or flat nipples (flat nipples), inverted nipples. Postpartum mothers, 8 samples from 10 mothers stated that the results of the Oketani massage were 80% effective because the mothers felt that their breast problems were resolved to smooth breastfeeding and prevent breast milk damming (Kabir & Tasnim, 2009; Machmudah et al, 2015).

The implementation of Oketani Massage using Video via Zoom meeting which was carried out was more effective because the process of giving the stages of doing Oketani massage could be seen by more postpartum mothers, from 12 mothers who were willing to become subjects, enumerators would accompany them while watching videos of Oketani massage via zoom, after each mothers can share

experiences and how to overcome them. In this condition, the researcher saw a change in each mother when she received the answer to her question. Some mothers are unable to open the video for face-to-face due to the network, many changes are felt by postpartum mothers, where they can breastfeed their babies after doing an Oketani massage, and breast milk products become more abundant and feel lighter in the mother's chest area. This process is in accordance with Setyawati, Suryani & Wahyuni (2020) when using Zoom meetings, participants will actively participate in all face-to-face and communicative activities.

Before the video playback process via zoom meeting during the Covid-19 pandemic, enumerators will visit postpartum mothers who are willing to be part of this activity. Each enumerator accompanies two postpartum mothers. After explaining the purpose and understanding the postpartum mother, she was given an explanation of the process of watching the Oketani massage video with other mothers. In addition, the mother was given an Oketani Massage Leaflet to be studied first. The conditions are in accordance with Khoriah 2021. Through the zoom cloud meeting, it shows that participants already have the basic facilities for participating in online learning, have flexibility in their implementation, are able to encourage the emergence of independent learning and motivation to be more active in learning in addition to the emergence of social distancing behaviour so as to reduce the potential for the spread of Covid-19. Weak supervision and weak signal in certain areas, the high cost of quotas is a challenge.

There was a question from a nursing mother who doubted that she could do this Oketani massage herself. After following the process of watching the video zoom meeting steps one to eight in a way that is done at the points of emphasis. Then the mother can practice alone beside the baby is sleeping and the results reduce swelling and breast pain. Oketani massage has clear guidelines according to Pingwong, Kantaruksa, Chaloumsuk, 2020. Using 2 methods of breast massage reduces breast swelling for breastfeeding mothers. Both Gua-Sha therapy and Oketani breast massage provide clear practice guidelines, proving to be effective interventions for postpartum mothers. Gua-Sha reduces breast engorgement only but Oketani Massage reduces breast pain as well as breast engorgement.

Postpartum mothers who received Oketani Massage therapy experienced an increase in their milk production and smoothly, there was a change in the nipples of postpartum mothers, and did not experience signs or breast milk dams. It was found that there was a difference in breast milk production before and after the Oketani massage therapy (Yasni H. Fathim YS., 2020). Kusumawati, Qomar and Pratiwi. 2018. Get effective at preventing breast milk dam through Oketani massage. Oketani massage performed on 22-postpartum mothers did not experience breast milk damming. However, postpartum mothers did not do the Oketani massage. 17-postpartum mothers experienced breast milk damming.

When postpartum mothers watch the video zoom meeting of the Oketani massage on the first day of intervention, many questions are asked, by using the Oketani massage video not only the mother is involved but the husband or family can participate in the process, the mother can work together in the next Oketani massage process. In the video playback of Oketani massage, it is recommended to be able to use olive oil and the like, but it is recommended to use olive oil because in addition to making the massage process smoother, it can also treat breast skin to become softer and healthier. There is an increase in knowledge of postpartum mothers so that they can be directly practiced. According to Setiyawati. 2019. Counselling on cervical cancer also with video media has an effect on increasing knowledge about cervical cancer, but counselling on cervical cancer with video media does not affect the increase in attitudes to doing the IVA test.

Oketani massage can be used as a nursing intervention by nurses or other health workers to increase breastfeeding where the mother's need for support for mothers undergoing C-section, research shows that the success rate of breastfeeding is significantly higher in mothers in the intervention group. Mothers in the intervention group breastfed their babies in a significantly shorter time interval. Nababan et al stated that postpartum maternal breast milk damming and post caesarean section can be effectively prevented through Oketani massage. For medical personnel, the Oketani massage method to switch from traditional breast care to breast care is currently highly recommended, besides being effective in preventing breast engorgement, it also increases milk production.

Sari and Shahda. 2020 shows the milk production of postpartum mothers before the Oketani massage has an average value of 82.40 cc. After being given the Oketani massage, the average value of 105.20 cc was significant. So it is hoped that postpartum mothers have done Oketani massage so that they continue to do it regularly, thereby increasing milk production and facilitating when mothers breastfeed their babies. Shahri, Nourian, Varzeshnejad & Nasiri 2021. Breastfeeding self-efficacy, according to BSES, was significantly higher in mothers from the intervention group before discharge from the ward.

Oketani massage also provides an overall sense of relief and comfort for postpartum mothers, improves breast milk quality, prevents nipple blisters and mastitis and can improve/reduce lactation problems due to flat nipples, inverted or inverted nipples. In addition, postpartum mothers also feel smooth in urinating and defecating. According to Astari & Mahmudah's research (2019), after being given the Oketani massage as well as the Marmet technique, there was a significant difference in the frequency of breastfeeding, urination, and defecation felt by postpartum mothers. Oketani massage is more

effective in influencing the frequency of breastfeeding and defecation, if using the Marmet technique, the delta value of breastfeeding frequency is $13.5 > 13.1$, the value of defecation is $5.75 > 3.00$, for the Marmet technique is more effective in influencing the frequency of urination, the delta value of urination frequency is $9.25 < 11.12$.

Based on Government Regulation Number 33 of 2012, exclusive breastfeeding is breast milk given to babies from birth for six months, without adding and/or replacing with other foods or drinks. Breastfeeding for 6 months of life, ideal start for babies. Marshall, 2014 Breastfeeding improves the health and cognitive development of infants and mothers in both developed and developing countries, and is the single most important preventive approach to saving the lives of infants and young children.

Adequacy of breast milk is a benchmark for achieving the success of Oketani Massage through video zoom meeting lessons in Balikpapan City, increasing milk production in postpartum mothers who are given the intervention, the baby will be satisfied in getting breast milk. Oketani massage really needs to be delivered on any occasion so that many mothers can get the benefits. It can also prevent shunting in children. Dehghani *et al.* 2018 Oketani breast massage compared with routine care increased neonatal weight among lactating women with breast engorgement. Machmudah *et al.* 2018 stated that Oketani Massage worked well as a pain reliever, providing comfort, relaxation for postpartum mothers. This condition will lower levels of the hormone cortisol and increase blood flow to the breasts.

The implementation of Oketani massage using video zoom meetings for postpartum mothers to smooth milk production is effective by increasing the knowledge of postpartum mothers about one method of breast care other than conventional, through Oketani breast massage. increase milk production and postpartum mothers have no complaints in breastfeeding.

Using the delivery method via video has many advantages, being able to meet face to face with many mothers in one activity, it also supports social distancing during the Covid-19 Pandemic. but the weakness is that it requires supporting tools that are in accordance with current conditions and requires a fee for purchasing quotas.

Conclusion

The implementation of Oketani massage using video zoom meeting for postpartum mothers increased the knowledge of postpartum mothers and families about one method of breast care through Oketani breast massage to increase breast milk and there were no complaints in breastfeeding.

Using the delivery method via video zoom meetings has many advantages, being able to meet face to face with many mothers in one activity, it also supports social distancing during the Covid-19 Pandemic. The disadvantage is that it requires supporting tools that are in accordance with current conditions and requires a fee to purchase quotas

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