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The Effect Of Oketani Massage And Oxytoxin Massage On Breast Milk Production In Postpartum Mothers In Tpmb D In 2024

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ABSTRACT

Breast milk (breast milk) is a fluid produced by the mother's breast glands since pregnancy which is the best natural food containing the best nutrition for the baby. Factors that cause low breastfeeding include hormonal factors, food intake, maternal psychological condition, breast care, frequency of breastfeeding, consumption of drugs, contraceptives, insufficient milk production, breast milk dam and nipple problems. One of the efforts to help smooth breast milk is by breast care that is carried out periodically according to procedures, namely oketani massage and oxytoxin massage so that this study aims to determine the effect of oketani massage and oxytoxin massage on breast milk production in postpartum mothers in TPMB D, Kediri City. The design of this study uses an experimental quasy with a two-group Pretest-Posttest Design approach that measures before and after in two groups. The sample size was 7 respondents in the oketani massage group and 7 respondents in the oxytocin massage group. The sampling technique in this study uses a simple random sampling technique. Bivariate analysis for the statistical test used in this study, namely the Wilcoxon test, and the Independent Sample T test were used to confirm the difference in breast milk production volume from the oketani massage group and the oxytocin massage group. The results of the study showed that there was a difference in the volume of pre-test and post-test breast milk production between the two groups. There was an insignificant difference with a p value of 0.041< α (0.05). This shows that the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. Oketani massage is more effective in increasing breast milk production in postpartum mothers.

Keywords: Oketani Massage, Oxytoxin Massage, Postpartum

1. INTRODUCTION

Breast milk (breast milk) is a fluid produced by the mother's breast glands since pregnancy which is the best natural food containing the best nutrition for the baby. Exclusive breastfeeding for babies is one of the targets of WHO. WHO targets that by 2025, the prevalence of exclusive breastfeeding in the world will reach 50%. Meanwhile, until July 2018, in the world, the prevalence of exclusive breastfeeding only reached 41%. (UNICEF, 2018 in Sutama, 2020).

Nationally, the coverage of babies receiving exclusive breastfeeding in 2021 is 56.9%. This figure has exceeded the 2021 program target of 40% (Ministry of Health of the Republic of Indonesia, 2021). However, based on data from Regencies/Cities, it is known that the coverage of babies who receive exclusive breastfeeding for babies < 6 months in East Java in 2021 is 71.7%. This coverage has decreased compared to 2020 (79.0%). (East Java Health Office, 2021). The results of the initial survey conducted by researchers at TPMB D, data was obtained that of the 98 babies born between August 2023 and January 2024 who received exclusive breastfeeding for 6 months, 25 babies (25.5%). So that the problem is the low level of exclusive breastfeeding to babies at TPMB D.

Factors that cause low breastfeeding include hormonal factors (prolactin and oxytocin), food intake, maternal psychological conditions, breast care, frequency of breastfeeding, consumption of drugs, contraceptives, insufficient milk production, breast milk dams and nipple problems. One of the efforts to help smooth breastfeeding is by taking care of the breasts that are carried out regularly according to procedures. Breast care aims to improve blood circulation, and prevent blockages in the milk ducts so that they can facilitate milk production. One of the breast treatments that can be done is to do a lactation massage. Some types of lactation massage include arugaan massage, marmet massage, oketani massage and oxytocin massage. (Hidayah, 2023). In 1991, a midwife from Japan named Sotomi Oketani created a massage technique to overcome breastfeeding problems called Oketani massage, this type of massage has been applied as an exclusive breastfeeding support program in Bangladesh and has been proven to be successful. Massage is one of the breast care methods that does not cause pain. The benefits of oketani massage include creating a sense of comfort, increasing breast milk production, breasts becoming more elastic, smooth milk production channels and the ability to prevent and treat mothers who experience breast swelling, sunken nipples, blistered nipples, sunken nipples or flat nipples (Macmudah, 2017; Sembiring, 2019 ; Romlah & Rahmi, 2019). Oketani massage stimulates the hormones prolactin and oxytocin. The hormone prolactin is responsible for the production of breast milk, while the hormone oxytocin is responsible for secreting breast milk. The hormone oxytocin is a hormone produced by the posterior pituitary gland. This hormone is responsible for passing the milk that has been produced by prolactin to the lactive tract and to the baby's mouth through his suction. Oketani massage will make the mammary glands mature and wider, so that the mammary glands become more and more abundant and the milk produced increases. The breasts will become soft, pliable and areola and nipples will become more elastic when you do an oketani massage. The whole breast becomes more flexible and makes breast milk of better quality because the content of solids, fat concentration and gross energy increases (Macmudah, 2017; Sembiring, 2019). Oketani massage stimulates pectoralis muscle strength to increase milk production and make breasts softer and more elastic so that babies can easily suck breast milk (Yasni et al., 2020). The mother's perception of oketani massage is positive, namely that the mother is more confident and states that her baby can

breastfeed better than before (Tasnim et al., 2019).

Other efforts to stimulate the hormone prolactin and oxytocin can be done by oxytocin massage efforts. Oxytocin massage is one way to increase breast milk production. The application of oxytocin massage is carried out on postpartum mothers by massaging along the spine to the 6th by rotating using both thumbs for 3 minutes regularly. This massage stimulates the hormone oxytocin so that the breasts produce breast milk (Lestari et al., 2018). Oxytocin massage given to mothers who have milk production problems can facilitate breast milk production, because this massage provides comfort to the mother. The comfort felt by the mother will be felt by the baby, so that the baby feels comfortable and can breastfeed better (Magdalena et al., 2020). Providing oxytocin massage has benefits such as calming, reducing stress, boosting confidence, helping postpartum mothers to have good thoughts and feelings about their babies and so on (Apreliasari & Risnawati, 2020). Oxytocin massage has been proven to increase relaxation, sleep more comfortably and quality, reduce pain, reduce stress and help increase the hormone oxytocin and prolactin hormones so as to facilitate breast milk production (Lestari et al., 2021). The purpose of this study is to determine the effect of oketani massage and oxytoxin massage on breast milk production in postpartum mothers in TPMB D Kediri City in 2024.

2. METHODE

The design of this study uses an experimental quasy with a two-group Pretest-Posttest Design approach that measures before and after in two groups so that the effectiveness of oketani massage and oxytocin massage in postpartum mothers can be seen. By using the Stanley sample size formula, the results of the sample size calculation did not meet the minimum standard in determining the sample size, so in determining the sample size, the minimum sample size standard was used, which was as many as 7 respondents in the oketani massage group and 7 respondents in the oxytocin massage group. The sampling technique in this study uses a simple random sampling technique. The inclusion criteria for postpartum mothers on the 14th day, for exclusion criteria, are mothers who experience pain such as breast cancer, diabetes, hypothyroidism or heavy bleeding after childbirth that affects breast milk production, mothers who consume breast milk stimulating drugs and experience spinal injuries. The instrument used in this study was an observation sheet of breast milk production volume before and after oketani massage and oxytocin massage for 7 consecutive days, also using a guide sheet for the implementation of oketani massage and oxytocin massage. Bivariate analysis for the statistical test used in this study was the Wilcoxon test to analyze the effect before and after oketani massage on the increase in breast milk production, as well as for the comparison of the effect of breast milk production volume before and after oxytocin massage using the Wilcoxon test. The Independent Sample T test was used to confirm the difference in breast milk production volume from the oketani massage group and the oxytocin massage group.

3. RESULTS

Table 1. Distribution of Respondents by Age

No	Age	Goup		Sum
		Oxytoxin Massage	Oketani Massage	
1	20-35 years old	3 (42,9%)	2 (28,6%)	5 (35,7%)
2	>35 years old	4 (57,1%)	5 (71,4%)	9 (64,3%)
Sum		7 (100%)	7 (100%)	14 (100%)
Chi square		p = 0.577		

Based on table 1, it shows that of the 7 respondents in the oxytoxin massage group, 42.9% were aged 20-35 years, 57.1% were >35 years old. Meanwhile, of the 7 respondents in the massage group, there were 28.6% aged 20-35 years, and 71.4% of mothers aged >35 years. Based on the results of the test when squared for age was obtained p=0.577 > 0.05, it can be concluded that there is no age difference in the oxytoxin massage and oketani massage groups which means homogeneous

Table 2. Distribution of Respondents Based on Education

No	Education	Goup		Sum
		Oxytoxin Massage	oketani massage	
1	high school education	5 (71,4%)	5 (71,4%)	10 (71,4%)
2	junior high school	2 (28,6%)	1 (14,3%)	3 (21,4%)
3	College Education	0 (0%)	1 (14,3%)	1 (7,1%)
	Sum	7 (100%)	7 (100%)	14 (100%)
Chi square		p = 0.513		

Based on the 2 above, it shows that of the 7 respondents in the oxytoxin massage group, 71.4% of mothers have a high school education, and another 28.6% have a junior high school education. Meanwhile, of the 7 respondents in the massage group, 71.4% of mothers have high school education, 14.3% have junior high school education, and 14.3% of other mothers have college education. Based on the results of the test when squared for education was obtained p=0.513 > 0.05, it can be concluded that there is no difference in maternal education in the oxytoxin stepping group and the oketani massage group, which means homogeneous

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Table 3. Distribution of Respondents Based on Parity

No	Parity	Group		Sum
		Oxytoxin Massage	Oketani Massage	
1	Multipara	7 (100%)	6 (85,7%)	7 (50%)
2	Primiparous	0 (0%)	1 (14,3%)	7 (50%)
	Sum	7 (100%)	7 (100%)	14 (100%)
Chi square		p = 0.299		

Based on table 3, it shows that of the 7 respondents in the oxytoxin massage group, all of them are multipara. Meanwhile, of the 7 respondents in the massage group, 85.7% were multipara mothers, and 14.3% were primipara mothers. Based on the results of the test when squared for age obtained p=0.299 > 0.05, it can be concluded that there is no difference in maternal parity in the oxytoxin massage and oketani massage groups, which means homogeneous.

Table 4. Distribution of respondents based on employment status

No	Employment Status	Group		Sum
		Oxytoxin Massage	Oketani Massage	
1	Work	3 (42,9%)	2 (28,6%)	5 (35,7%)
2	Not Working	4 (57,1%)	5 (71,4%)	9 (64,3%)
	Jumlah	7 (100%)	7 (100%)	14 (100%)
Chi square		p = 0.577		

Based on table 4, it shows that of the 7 respondents in the oxytoxin massage group, 42.9% of mothers worked, 57.1% of mothers did not work. Meanwhile, of the 7 respondents in the massage group, there were 28.6% working, and 71.4% of mothers did not work. Based on the results of the test when squared for age obtained p=0.577 > 0.05, it can be concluded that there is no age difference in the oxytoxin massage and oketani massage groups, which means homogeneous.

Table 5. Volume of Breast Milk Production before and After Oxytoxin Massage

Oxytoxin Massage	N	Mean	SD	p
Breast Milk Production Volume (pre)	7	86,27	34,98	0,000
Breast Milk Production Volume (post)	7	126,37	41,46	

Based on table 5, it was shown that the oxytocin massage group had a significant difference in the change in breast milk production volume before and after oxytocin massage, with a p value of 0.000 < α (0.05).

Table 6. Volume of Breast Milk Production before and After Oketani Massage

Oketani Massage	N	Mean	SD	p
Breast Milk Production Volume (pre)	7	82,43	41,46	0,000
Breast Milk Production Volume (post)	7	135,97	50, 07	

Based on table 6, it was shown that the oketani massage group had a significant difference in the change in breast milk production volume before and after oketani massage, with a p value of 0.000 < α (0.05)

Table 7. Comparison of Breast Milk Production Volume between Oxytoxin Massage Group and Oketani Massage Group

Variable	Average	SD	p
Difference in breast milk production volume pre test and post oxytoxin massage test	40,1	19,15	0,041
Difference in the volume of breast milk production pre test and post test of oketani massage	53,54	18,69	

Table 7 shows that there is a difference in the volume of pre-test and post-test breast milk production between the two groups. There was an insignificant difference with a p value of 0.041< α (0.05). This shows that the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. Oketani massage is more effective in increasing breast milk production in postpartum mothers.

4. DISCUSION

Volume of Breast Milk Production before and After Oxytoxin Massage

The p value of oxytocin massage was obtained 0.000 < α (0.05) from the results, it was concluded that there was a significant difference with the increase in breast milk production volume. This is in line with the results of research conducted (Marantika, 2023) of the National University. The results obtained in the group given oxytocin massage intervention experienced an increase in smooth breast milk production with an average of 87.33 and in the control group an increase in smooth breast milk production with an average of 55.33, with an average difference of 32. Therefore, it can be concluded that there is an effect after the administration of oxytocin massage intervention on the smooth production of breast milk at TPMB. R Jatibening, Bekasi City. With this oxytocin massage, it will also relax tension and relieve stress and increase comfort (Fatrin, 2022). When the mother feels comfortable or relaxed, the body will easily release the hormone oxytocin. The hormone oxytocin is produced by the posterior pituitary gland. Once produced, oxytocin will enter the bloodstream and then stimulate the meopitel cells that surround the mammal alveolus and lactiferus ductus. The contraction of the meopitel cells pushes the breast milk out of the mammal alveolus through the laktiferus duct to the laktiferus sinus where the milk will be stored. When

the baby sucks on the nipple, the milk stored in the lactive sinuses will be pressed out of the baby's mouth. (Aryani, 2021) The results of the study (Doko, 2019) that the administration of oxytocin massage by the husband can increase the production of breast milk (breast milk) in postpartum mothers as seen by the baby's weight per day, the frequency of breastfeeding, the length of the baby's sleep, the frequency of baby bowel movements (BAB), the frequency of baby urination (BAK), and the mother's sleep break. So it can be concluded that after being given oxytocin massage intervention there is an effect on the postpartum mother, maternal breast milk production increases so that between the results of the research conducted by the author and the research conducted previously there is a consistency in the results obtained after the intervention

Volume of Breast Milk Production before and After Oketani Massage

The results of the data analysis obtained a p value of 0.000 < α (0.05), which concluded that there was a significant increase in the volume of breast milk production before and after the intervention. The results of this study are in line with research conducted by (Sari, 2020) research shows that the production of breast milk for postpartum mothers before performing oketani massage obtained an average value of 82.40 cc. Meanwhile, the milk production of postpartum mothers after being given an oketani massage has an average value of 105.20 cc, namely that the production of breast milk before the < of 100 cc is 20 respondents (80%) and the production of normal breast milk or ≥ 100 cc is 5 respondents (20%) while the production of breast milk after being given oketani has increased, namely the production of breast milk ≥ 100 cc is 21 respondents (84%) and the production of breast milk < 100 cc is 4 respondents (16%). Breast milk production in each postpartum mother before the massage has less breast milk production. After performing an oketani massage on each respondent, the milk production of postpartum mothers experienced an increase which was marked by an increase in the volume of breast milk after 5 days of massage. The results of this study are also in accordance with the theory that the benefits of oketani massage are to smooth the channels and milk production so that milk production increases, making the breasts will be more elastic and soft on the neck of the nipples, the top of the nipples, and around the aerola, this massage also does not cause pain or discomfort Oketani massage can also affect the baby's condition such as improving reflexes, weight increase and infant satisfaction in breastfeeding (Anggraini, 2022). So it can be concluded that after being given an oketani massage intervention there is an influence on the postpartum mother, the mother's breast milk production increases so that between the results of the research conducted by the author and the research conducted previously there is a consistency in the results obtained after the intervention

Comparison of Breast Milk Production Volume between Oxytoxin Massage Group and Oketani Massage Group

The Independent Sample T-test showed the average volume of breast milk production before and after the test in the oketani massage group of 53.54 ml with a standard deviation of 18.69, while the average of the oxytocin massage group was 40.1 ml with a standard deviation of 19.15. It can be concluded that the p value from the results of the statistical test obtained is 0.046 < α (0.05), which means that Ha is accepted, it means that there is a difference in the volume of breast milk production between oketani massage and oxytocin massage. Oketani massage is more effective than oxytocin massage, this is evidenced by the difference in the average

production volume before and after oketani massage, which is superior, which is 53.54 ml compared to oxytocin massage, which is 40.1 ml. The results of this study are in line with the research of Buhari et al (2018) who argue that oketani massage is better than oxytocin massage on breast milk production in postpartum mothers from day 1 to day 3. The results of another study are also from Astari and Machmudah (2019) where the p value is 0.000 <α (0.05), from the results of previous studies that have been discussed and it can be concluded that oketani massage is more effective in working to increase breast milk production when compared to marmet massage and oxytocin massage. This is proven where from the comparison of these three massages, the most breast milk results obtained are the results obtained from oketani massage. This is in line with what was conveyed by (Machmudah, 2017) that oketani massage is very effective when compared to other breast massages, especially for postpartum mothers, oketani massage can stimulate the strength of the pectoralis muscles to increase milk production and make the breasts softer and more elastic so that it is easier for the baby to suck breast milk. Oketani massage will also provide overall relief and comfort to respondents, improve breast milk quality, prevent nipple blisters and mastitis and can improve or reduce lactation problems caused by flat nipples and inverted nipples

5. CONCLUSION

The conclusion of this study is that there is a difference in the volume of breast milk production between oketani massage and oxytocin massage in postpartum mothers in TPMB D and oketani massage is more effective than oxytocin massage. Based on the results of the study, it is hoped that health workers, especially midwives, will provide oketani massage training from an early age, namely as long as the mother attends the pregnant woman class in the third trimester so that when the mother enters the breastfeeding phase, she is able to empower herself and go out to do oketani massage.

6. REFERENCE

Anggraini, F. (2022). EFEKTIFITAS PIJAT OKETANI DAN PIJAT OKSITOSIN DALAM MENINGKATKAN PRODUKSI AIR SUSU IBU (ASI). Jurnal Vokasi Keperawatan (JVK), Vol. 5 No. 2, 93-104.

Anuhgera, D. E. (2021, April 30). PENGARUH OKETANI MASSAGE TERHADAP KECUKUPAN ASI PADA IBU POSTPARTUM DI PRAKTIK BIDAN MANDIRI (PBM) KASIH IBU KABUPATEN DELI SERDANG. Jurnal Penelitian Kebidanan & Kespro, Vol. 3 No. 2, 6 -12.

Aryani, Y. (2021). Proses Lactasi dan Teknik Pijat Oksitosin.Pekanbaru: Malay Culture Studies.

Astari, A. D. (2019). Pijat Oketani Lebih Efektif Meningkatkan Produksi ASI pada Ibu PostPartum Dibandingkan dengan Teknik Marmet. Vol. 2 No. 1, 242 -248.

Doko, T. M. (2019). PENGARUH PIJAT OKSITOSIN OLEH SUAMI TERHADAP PENINGKATAN PRODUKSI ASI PADA IBU NIFAS. Jurnal Keperawatan Silampari, Vol. 2 No. 2, 66-86.

Fatrin, T. (2022). Edukasi praktik pijat oksitosin terhadap peningkatan kelancaran produksi ASI. Jurnal Pengabdian Masyarakat Humanity And Medicine, Vol. 3 No. 1, 36-46.

Halimatussakdiah. (2023, Juni 13). Penerapan Oketani Breast Massage (OBM) Pada Ibu Postpartum Dengan Pendekatan Evidence Based Nursing Practice (EBNP). Jurnal SAGO Gizi dan Kesehatan, Vol. 4 No. 2, 252-262

Hidayah, S. N. (2023, September 22). PENGARUH PIJAT OKETANI

TERHADAP PRODUKSI ASI PADA IBU NIFAS DI RUANG ADAS MANIS RSUD PANDAN ARANG BOYOLALI. Vol. 1 No. 3, 221 -230.

Katili, D. N. (2022). PENGARUH PIJAT OKETANI TERHADAP PENINGKATAN PRODUKSI ASI PADA IBU POST PARTUM. Vol. 7 No 1, 58 -63

Machmudah. (2017, September 30). SUKSES MENYUSUI DENGAN PIJAT OKETANI. Implementasi Penelitian dan Pengabdian Masyarakat Untuk Peningkatan Kekayaan Intelektual(pp. 221 -225). Semarang: Universitas Muhammadiyah Semarang.

Marantika, S. (2023). Pengaruh Pijat Oksitosin Terhadap Kelabcaran Produksi AASI PAda Ibu Post Partum. Jurnal Menara Medika, 277 -285.

Marantika, S. (2023, Maret 28). PENGARUH PIJAT OKSITOSIN TERHADAP KELANCARAN PRODUKSI ASI PADA IBU POST PARTUM. Jurnal Menara Medika, Vol. 5 No.2, 277-285

Wijayanti, T., &Setiyaningsih, A. (2017). Perbedaan metode pijat oksitosin dan breast care dalam meningkatkan produksi asi pada ibu post partum.Jurnal Komunikasi Kesehatan,8(2).

Wulandari, P., Menik, K., & Khusnul, A. (2018). Peningkatan produksi ASI ibu post partum melalui tindakan pijat oksitosin.Jurnal Ilmiah Keperawatan Indonesia [JIKI],2(1), 33-49.

Yasni, H., Sasmita, Y., & Fathimi. (2020). Pengaruh pijat oketani terhadap produksi ASI pada ibu nifas di wilayah kerja puskesmas lhok bengkuang kecamatan tapaktuan. Jurnal Pendidikan, Sains, Dan Humaniora, 4(2), 117–123