

***THE EFFECT OF OXYTOCIN MASSAGE ON BREAST MILK
PRODUCTION AMONG BREASTFEEDING WOMEN
AT RB CITRA LESTARI BOJONGGEDE BOGOR
IN 2022***

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ABSTRACT

Efforts to support the increase in exclusive breastfeeding can be seen by the issuance of various recognitions or agreements, both global and national in nature, which aim to protect, promote and support breastfeeding for every baby throughout the world to obtain their right to breast milk. In Indonesia, infants who received exclusive breastfeeding in 2020 amounted to 69.62%. The Ministry of Health (KemKes) has set a target of 80% exclusive breastfeeding coverage every 2020-2024. To determine the effect of breast milk production before and after oxytocin massage at TPMB Bersama Citra Lestari Bojonggede, Bogor Regency, in 2022. Using pre-experimental with One Group PreTest-Posttest Designs research design. This study's sample number was 20 respondents with an accidental sampling technique that met the inclusion criteria. Shapiro Wilk carried out the normality test and found that the data were not normally distributed. Data analysis using a non-parametric test with Wilcoxon Signed Rank Test. The research results were conducted by pre-testing 20 respondents were breastfeeding women before oxytocin massage. Most of the milk production was less than 11 (55%). While the breast milk production after oxytocin massage is as sufficient as 12 (60%). It can be concluded that if the p value = $0.000 < (0.05)$, H_0 is rejected, and H_a is accepted. The conclusion of this study is the significant effect of oxytocin massage on breast milk production at RB Citra Lestari Bojonggede Bogor in 2022.

Keywords: *Oxytocin Massage, Breastfeeding Women, Breast Milk Production*

INTRODUCTION

Breast milk is the perfect food for babies and contains all the nutrients needed for the growth and development of babies, and these nutrients include proteins, carbohydrates, fats, vitamins, minerals, and water. In addition, breastfeeding is also beneficial for babies, while the benefits of breastfeeding can be viewed from various aspects, namely aspects of intelligence, nutritional, and immunological aspects (Arini, 2012). Efforts to support the increase in exclusive breastfeeding can be seen from the issuance of various acknowledgments or agreements both global and national which aim to protect, promote and support breastfeeding and every baby around the world has the right to breastfeed. In accordance with the 3rd and 2nd targets of the Sustainable Development Goals (SDGs), namely, by 2030, end preventable infant and under-five mortality with all countries trying to reduce the neonatal mortality rate to at least 12 per 1,000 live births (Henderson, 2009).

According to WHO (2013), infants who are given milk other than breast milk have 17 times more risk of having diarrhea, and three to four times more likely to get ARI compared to infants who are breastfed. Therefore, women need help so that the exclusive breastfeeding process is successful.

Many problems are found in breastfeeding women: women feel that their milk is not enough for their babies, and breast milk does not come out smoothly on the first day of the baby's birth. Many problems are found in breastfeeding women: women feel that their milk is not enough for their babies, and breast milk does not come out smoothly on the first day of the baby's birth. It is not because women are not confident that their breast milk is sufficient for their babies, but the lack of knowledge and skills of breastfeeding women about the advantages and benefits of breastfeeding causes them to be easily influenced by the promotion of formula milk which is often stated as a substitute for breast milk. So that nowadays, more and more breastfeeding women are bottle-feeding, which harms them.

The hormone oxytocin yesterday impacts the release of the hormone prolactin as stimulation of breast milk production in women during breastfeeding. Therefore, it is necessary to stimulate the oxytocin reflex before the milk is removed or expressed. The form of stimulation on the women is oxytocin massage (Amin & Jaya, 2011).

Oxytocin massage is one solution to overcome non-smooth milk production. Oxytocin massage is a massage along the spine (vertebrae) to the fifth-sixth rib and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth. This massage increases the oxytocin hormone which can calm the women, so breast milk automatically comes out. It is important that babies will not get enough milk if they only rely on the milk formation reflex or the prolactin reflex (Roesli, 2010).

Breast milk production is influenced by the hormone prolactin, while production is influenced by the hormone oxytocin. The oxytocin hormone will come out through stimulation of the nipples through the baby's mouth sucking or through massage on the baby's women's spine; by massaging the baby's women's spine, the baby will feel calm and relaxed, increase the pain threshold and love the baby, so that the oxytocin hormone comes out, and the milk comes out quickly.

Based on a preliminary study conducted to coincide with the immunization schedule at RB Citra Lestari, researchers conducted interviews with 4 breastfeeding women, and it was found that there were 3 breastfeeding women with babies aged 0-3 months who experienced problems with breastfeeding not smooth, while in 1 breastfeeding women with the age of 5 months baby does not have problems with milk ejection. Based on these problems, it is essential to conduct this research to determine the effect of breast milk production among breastfeeding women 0-3 months before and after oxytocin massage at RB Citra Lestari Bojonggede Bogor in 2022.

METHOD

This study was conducted to determine the effect of oxytocin massage on breast milk production among breastfeeding women at TPMB Bersama Citra Lestari Bojonggede, Bogor Regency in 2022. This type of research is a pre-experimental research design with One Group PreTest-Posttest Designs. The number of samples in this study were 20 respondents with accidental sampling technique

that met the inclusion criteria. Shapiro Wilk conducted a normality test and found that the data were not normally distributed. Data analysis used non-parametric test with Wilcoxon Signed Rank Test.

RESULTS AND DISCUSSION

Based on table 1 above, it can be seen that from the pre-test results of 20 respondents who were breastfeeding women before oxytocin massage, most of the milk production was less as much as 11 (55%). While the breast milk production amount after oxytocin massage was sufficient primarily as much as 12 (60%).

Table 1. Distribution of Breast Milk Production Frequency for Breastfeeding Women Before and After Oxytocin Massage at RB Citra Lestari Bojonggede Bogor in 2022

Variable	Breast Milk Production	Total	
		N	%
<i>Pre-test</i>	Minus (0–3)	11	55
	Enough (4–6)	8	40
	Over (7–10)	1	5
Total		20	100
<i>Post Test</i>	Enough (4–6)	12	60
	Over (7–10)	8	40
Total		20	

Based on table 2 above, it can be seen that conducted by pre-testing was carried out on 20 respondents who were breastfeeding mothers before the oxytocin massage was performed. Most of the milk production is less, there are 11 respondents (55%). While the breast milk production after oxytocin massage is as sufficient as 12 (60%). It can be concluded that if the p value= 0.000 < (0.05), Ho is rejected, and Ha is accepted.

Table 2. Distribution of Breast Milk Production Frequency for Breastfeeding Women Before and After Oxytocin Massage at RB Citra Lestari Bojonggede Bogor in 2022

Variabel	N	Mean	Min-Max	Z	P Value	α
<i>Pre Test</i>	20	1.50	1-3	-3,819	0,000	5% (0,05)
<i>Post Test</i>	20	2.40	2-3			

Based on the results of the study, it was found that before the oxytocin massage was given, 11 (55%), 8 (40%) less breast milk production, and more than 1 (5%) were sufficient for 20 respondents. (Haryono, 2013). After a lot of milk is produced and the baby is able to suckle well, the baby will urinate more often so that he can wet 6-8 cloth diapers per day. The color of a baby's urine with enough breast milk tends to be light yellow or clear. Once the baby is getting enough milk, the stools will be bright yellow in color. The baby's seems satisfied, calm, and sleepy. The baby suckles at least 10 times in 24 hours, the women's breasts feel empty and soft after feeding, the women can feel the decrease in breast milk when the baby first feeds, the women can hear the sound of swallowing when swallowing breast milk, the baby's weight increases and the signs of the baby lack of breast milk are the baby's

weight gain is less, the productin of urine is little or less than 6 times a day, the baby is not satisfied after feeding, the baby cries often, the baby refuses to breastfeed. Baby poop is hard, dry, and green.

In line with research conducted by Rusdiati (2013), it was found that oxytocin massage had an effect on the release of breast milk in postpartum women. The results showed that the average milk output for postpartum women who did not receive oxytocin massage was 4.61 minutes, and the average breast milk output for postpartum women who received oxytocin massage was 11.78 minutes.

According to the analysis the lack of breast milk production is caused by a lack of stimulation of the hormones prolactin and oxytocin, which play a very important role in the smooth production of breast milk. Other factors that affect breast milk production, such as baby sucking is not perfect, or the women's nipples are very small, will make the production of the hormone oxytocin and prolactin hormones continue to decline, and breast milk production will be stop. In addition, breast milk production is strongly influenced by psychological factors; women who are always in a state of depression, sadness, lack of confidence, and various forms of emotional tension will reduce the volume of breast milk, and even breast milk production will not occur. To produce good breast milk, you must be in a calm state. The age factor will also affect production.

Meanwhile, the difference in breast milk production between the pre and post-measurements obtained an average of -1.952 with a standard deviation of 1.161 breast milk because the older a person ages will affect the production of the hormones prolactin and oxytocin in nursing women. One of the complementary therapies that can be done to increase the breast milk production is oxytocin massage.

Based on the results of the study, after being given oxytocin massage, there were enough milk production in 12 respondents (60%) with more than enough milk production 8 respondents (40%) This study shows conformity with the theory (Utami, 2013) that doing massage along the spine (vertebrae) to the bones to the fifth-sixth rib will stimulate the hormones prolactin and oxytocin so that breast milk can automatically run more smoothly. In addition to facilitating breast milk, oxytocin massage provides comfort to the women, reduces swelling (engorgement), reduces milk blockage, stimulates the release of the hormone oxytocin, and maintains breast milk production.

The results of this study are in line with -Delima's research (2016); it was found that the average breastmilk production before oxytocin massage was 7.05 and the standard deviation was 0.740, and the average breast milk production after oxytocin massage was 9.00, and the standard deviation was 1.183. Meanwhile, the difference in breast milk production between the pre and post-measurements obtained an average of -1.952 with a standard deviation of 1.161. The statistical test results obtained a p-value of 0.000, so it can be concluded that oxytocin massage affects breast milk production because there is a significant difference between breast milk production before and after treatment.

The results showed that there was a change in the increase in breast milk production from pre-test (before oxytocin massage) to post-test (after oxytocin massage) with a mean Pre Test of 1.50 (less-

enough scale) and Post Test of 2.40 (moderate-more). The bivariate analysis results showed that the p -value = $0.000 < (0.05)$ indicated an effect of oxytocin massage on the breast milk production of nursing women.

The results of this study are in line with Mayasari's research (2017) which shows that breastfeeding women before being given oxytocin massage are mostly lacking (60%) and after being given oxytocin massage are mostly sufficient (53%) and Bivariate Analysis shows that there is an effect of oxytocin massage on breast milk production among breastfeeding women. Breastfeeding women in Merbuh Village, Kendal District with p value = 0.000 (p value < 0.05). This research is supported by the theory (Kodrat, 2010) not all breastfeeding women excrete sufficient breast milk for their babies, where the inhibiting factor in breastfeeding is the production of breast milk itself. Insufficient and slow breast milk production can cause women not to give enough breast milk to their babies. In addition to the hormone prolactin, lactation also depends on oxytocin, which is released from the posterior pituitary in response to nipple sucking. Oxytocin affects the myoepithelial cells surrounding the mammary alveoli so that the alveoli contract and secrete milk that the mammary glands have secreted; the women's spirit influences this oxytocin reflex. If there is a feeling of anxiety, stress, and doubt that occurs, then the release of breast milk can be hampered.

In addition, women should pay attention to the factors that influence the success of oxytocin massage, namely listening to the baby's voice which can trigger a flow that shows how milk production can be influenced psychologically and environmental conditions during breastfeeding, self-confidence so that there is no perception of insufficient milk supply, getting closer with babies, relaxation, namely relaxing and calming exercises such as meditation, yoga, and progressive relaxation can help restore nervous and hormonal imbalances and provide natural calm, touch, and massage. When breastfeeding, supportive husband and family, drink coffee because it contains caffeine, warms breast, stimulates the nipple by pulling and turning the nipple slowly with his fingers (Astutik, 2014).

Based on the assumption that the researcher argues that doing oxytocin massage will provide relaxation, calm, and comfort so that it will increase breast milk production, it is supported by the theory of Hamranani (2010) that massage or stimulation of the spine, neurotransmitters will send messages to the hypothalamus in the posterior pituitary to release oxytocin, so that causes the breasts to secrete breast milk. Massage in this spinal area will also relax the tension and relieve stress, and thus the oxytocin hormone will come out and will help release breast milk.

CONCLUSIONS AND SUGGESTIONS

Based on the results of research on the effect of oxytocin massage on breast milk production at RB Citra Lestari Bojonggede, Bogor in 2022, 11 breastfeeding mother breast milk production before oxytocin massage was mainly in the less category as much as 11 (55%), enough as much as 8 (40%) and more as much as 1 (5%). Breast milk production after oxytocin massage was mainly in the sufficient

category, as many as 12 people (60%), and in the large category, as many as 8 people (40%). The analysis showed that the p-value was 0.000 (p-value <0.05), so it can be concluded that there was an effect after oxytocin massage was carried out on the breast milk production of nursing women.

As input for standard operating procedures (SOP) of RB Citra Lestari, Bojonggede District, and Midwife Independent Practice (PMB) and it is hoped that the Independent Midwife Practice (PMB) can develop by providing health education about Oxytocin Massage when women visit antenatal check-ups to produce breast milk as early as possible, maybe for breastfeeding preparation

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