

The Effect of Oxytocin Massage on Discharge Breast Milk for Postpartum Mothers in Batam City

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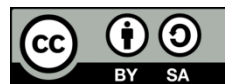
ABSTRACT

Breast milk (ASI) is the first and best food that must be given to babies because it contains nutrients that are needed in the process of growth and development of children's intelligence. Increasing breast milk production can be done in two ways, namely pharmacologically and non-pharmacologically. One action that can be done to help the release of breast milk is through oxytocin massage which can be done by massaging the area around the back (pars thoratica vertebrae) to stimulate the release of milk. The purpose of this study is to determine the effect of oxytocin footing on breast milk expenditure in postpartum mothers in Batam City in 2023. The type of research used is quasi-experiment with pretest research design and posttest one group design. The data analysis used was Paired t-test and this study was conducted for 5 days. The sampling technique in this study was purposive sampling with 17 respondents. The results of this study based on statistical tests obtained P value = 0.0001 with a difference of 3.06%, which means that it can be a significant difference before and after soy milk consumption. Conclusion: there is a significant influence between oxytocin footing on breast milk production in postpartum mothers in the working area of Batu Aji Health Center Batam City. Researchers hope that postpartum mothers can do oxytocin steps to increase milk production.

Keywords:

Breast Milk Secretion, Massage, Oxytocin

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1. INTRODUCTION

The content of breast milk (ASI) is the first and best food that must be given to babies because it contains nutrients that are needed in the process of growth and development of children's intelligence [9]

Breast milk is the first and main natural food for babies so that they can achieve optimal growth and development [4]. Breast milk is an emulsion of fat in a solution of protein, lactose and inorganic salts secreted by the mother's mammary gland, which is useful as food for her baby. Breast milk in sufficient quantities is the best food for infants and can meet the nutritional needs of infants during the first 6 months [17]

Breastfeeding is one of the most effective ways to ensure the health and survival of a child. The World Health Organization (WHO) recommends exclusive breastfeeding during the first 6 months of life, followed by continued breastfeeding with appropriate complementary foods for up to 2 years, but nearly 2 out of 3 infants are not exclusively breastfed for 6 months as recommended by WHO and to a level that does not improve in 2 decades [18]

According to research by Faizatul Ummah [15], it is recommended that mothers in addition to initiating early breastfeeding are also given oxytocin massage at 2 hours postpartum to accelerate breast milk expenditure so as to avoid the use of formula milk and can realize exclusive breastfeeding [15]

The puerperium is a very important period to pay attention to because it can reduce maternal and infant mortality, This puerperium period lasts from 2 hours after the placenta is born to 40 days or 6 weeks. During this period, postpartum mothers should get full monitoring to avoid complications that can cause pain and even death to

the mother. To maintain the health of mothers and babies, carry out early detection of complications and infections, provide education and health services for mothers and babies. During the puerperium, there are generally physical and psychological changes. One of the physiological changes is lactation or milk discharge [2]

Global exclusive breastfeeding coverage in the world is 44%, still below the target of exclusive breastfeeding coverage set by WHO, which is 50% by 2025 [18]. UNICEF 2021 data, Exclusive Breastfeeding coverage can also be seen in each region with the highest percentage, namely South Asia 57%, then East and South Africa 55%, Eastern Europe and Central Asia 41%, Latin America and the Caribbean 37%, West and Central Africa 37%, Middle East and North Africa 33%, East Asia and the Pacific 31%, and the lowest percentage North America 26%, while for Southeast Asia, the achievement of exclusive breastfeeding is 45% [16]

The percentage of exclusive breastfeeding coverage in Riau Islands in 2019 is 56.5% with each district and city, namely Natuna Regency 64.6%, Batam City 59.1%, Tanjung Pinang City 52.8%, Lingga Regency 51.5%, Karimun Regency 50.9%, Bintan Regency 49.7%, Anambas Islands 22.6% (Kepri Provincial Health Office, 2019).

The problem of mothers not breastfeeding their babies on the first day is due to the fear of mothers who do not have enough milk, flat nipples, swollen breasts, abscesses in the breasts, chafed or cracked nipples [14]. This pain will make a mother become stressed [3]

The process of milk secretion is also influenced by the let down reflex, where suction on the nipple stimulates glands in the brain to produce the hormone oxytocin [7]. In addition, the hormone oxytocin can stimulate muscle cells around the alveoli to contract so as to produce breast milk that has accumulated in it so that it will flow into the ductal ducts [1]

Breast milk production can be accelerated by non-pharmacological actions, namely through oxytocin massage which can be done by massaging the area around the back (pars thoratica vertebra), so that mothers will feel satisfied, happy, confident, because they can breastfeed their babies, think about their babies lovingly and other positive feelings will make oxytocin reflexes work [1]

The success of breastfeeding mothers needs support from their husbands and the role of the family also helps the success of breastfeeding [7]

According to research that has been done, it is stated that there is a significant relationship between oxytocin massage and smooth milk production [12]

The results of previous studies on the effect of oxytocin massage on breast milk production of postpartum mothers showed that there was an effect of oxytocin massage on breast milk production with indications of the baby's weight, frequency of breastfeeding, frequency of baby feeding and the length of time the baby slept after breastfeeding with an average of 3070 grams, average frequency of breastfeeding 5 times on the first day, average frequency of breastfeeding babies in the first 24 hours 8 times, and the length of the baby breastfeeding 2.17 hours on the first day. All these indicators will increase on days 7 and 14 [13]

The purpose of this study is to determine the effect of oxytocin footing on breast milk expenditure in postpartum mothers in Batam City in 2023.

2. METHOD

This research includes the type of experimental research with Quasi Experiment design and uses One Group Pretest and Posttest Design. The study was conducted on February 3 – February 7, 2023. The research was conducted in Batam City. The population was this study were post partum mothers on February 3 – February 7, 2023. Population of 17 people and the sample size of 17 people. Retrieval technique sample on research this is with non-probability sampling in the form of purposive sampling techniques. Consecutive sampling is method taking sample conducted with choose sample that meets criteria study until period time certain so that amount sample fulfilled [9]. Purposive sampling is a sampling technique with certain considerations in Sugiyono, (201624erdxc). The reason for using this purposive sampling technique is because it is suitable for use in quantitative research, or studies that do not generalize according to [20]

Inclusion:

- a. Ibu Post Partum
- b. Ready Becomes respondent, can communicate with good and be in Batam City

Data analysis used in this study was univariate and bivariat analysis using independent T-test with paired sample T- test.

3. RESULTS AND DISCUSSION

3.1 Result

Based on the table above, it is known that the age of most postpartum mothers aged 20-35 years is 12 people (70.6%). The highest maternal education is high school with 15 people (88.2%), the most maternal work as a housewife with 13 people (76.5%) and the highest multiparity of mothers with 11 people (64.8%).

Table 1. Distribution Of Postpartum Mothers Not Oxytocin Massage

Pre	Before oxytocin massage			
	Mean	N	Sd	P
	37.22	17	9.583	0,001

Based on Table 4.1, the average of postpartum mother's breast milk expenditure before oxytocin massage was 37.22.

Table 2. Distribution Of Postpartum Mothers After Oxytocin Massage

Post	After oxytocin massage			
	Mean	N	Sd	P
	50.00	17	11.882	0,001

Based on Table 4.2, the average of postpartum mother's breast milk expenditure after oxytocin massage was 50,00

Table 3. Comparative Test Results of Postpartum Mother's Breast Milk Expenditure Before and After Oxytocin Massage

Oxytocin massage	N	Mean	Differe nce	Sd	P
Pre	17	37,22	12,78	9.583	0,001
Post	17	50,00		11.882	

Based on table 4.3, it can be seen that postpartum mother's breast milk expenditure before oxytocin massage mean 37.22 and after oxytocin mean 50.00 steps, a difference of 12.78% was obtained, based on statistical tests obtained p value 0.0001 which means that there is a significant difference before and after oxytocin steps are carried out on maternal breast milk expenditure.

3.2 Discussion

Based on the results of the study showed that the milk expenditure of postpartum mothers was different before oxytocin massage and after oxytocin massage. According to [10] oxosine massage is done to stimulate the Let Down reflex when the baby sucks aerola which will send a stimulus to the neuropituitary to produce and release oxytocin intermittently.[21]

Through massage will release oxytocin reflexes. Massage Done regularly also affects smooth running breast milk, the more often the mother does massage, The increasing hormone oxytocin so that milk production increases smoothly [19]

Oxytocin will enter the mother's bloodstream and stimulate muscle cells around the alveoli so that they contract and make the milk that has accumulated in them flow into the ductal ducts. [22] The production volume of the amount of breast milk in the study with the amount of breast milk was 798 g / 24 hours. According to [17] the volume of breast milk when the baby is born is 5 ml of breast milk, in 24 hours the volume of breast milk 7-123 ml / day, between 2-6 days the volume of breast milk 395-868 ml / day, the 2nd week to 1 month of breast milk volume 395-868 ml / day of breast milk, 6 months of breast milk volume 710-803 ml / day of breast milk. Breast milk is needed by babies so that baby's growth and development can be said to be normal and good. [23]

One of the unsuccessful exclusive breastfeeding is due to the unsmooth production of breast milk, oxytocin massage is one solution to overcome the smoothness. [25] Breast milk massage is a massage along the spine (vertebrae) to the fifth sixth costae bone and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth [11]

From the results of this study conducted by this researcher, there is a difference between pretest and posttest as much as 312.78%, several factors that can affect breast milk expenditure, namely age, occupation, parity

A healthy reproductive age range is at the age of 20-35 years. From the results of the study, based on the age of postpartum mothers, most of them were aged over 20-35 years as many as 12 postpartum mothers with a percentage (70.6%). And researchers assume that the age of postpartum mothers with a healthy reproduction range greatly determines their health because it is related to the conditions of pregnancy and postpartum and how to parent, care for babies, and how to breastfeed their babies properly and correctly so that it is hoped that mothers in the puerperium can solve problems with a calm and mature mind.

In addition to the age of work, postpartum mothers also affect expenses. Based on the work of postpartum mothers as housewives, there were 13 postpartum mothers with a percentage (76.5%). The work of postpartum mothers also affects the increase in milk production, because if the mother is stressed about household chores or

feels anxious because there is no help from her husband and family which is only done by postpartum mothers themselves, it will affect the increase in the amount of milk production so that it can cause a lack of nutrition in the baby.

Another factor affecting the increase in milk production is maternal parity. Based on the parity of postpartum mothers, most of the multipara were 11 postpartum mothers with a percentage (64.8%). According to research conducted [8] in primipara mothers, their psychological condition after childbirth will be easier to feel anxious and labile so that it will affect the production of hormones that play a role in milk production and result in lack of breast milk intake in infants. While in multiparous mothers, milk production is more because they have more knowledge and experience about the breastfeeding process so that lactation management will be carried out properly. However, it could also be that the factor of increasing children can affect breast milk productivity because it can cause the mother's health status to decrease and fatigue in taking care of babies and children so that milk production also does not increase.[24]

Analysis of oxytocin massage researchers affects breast milk expenditure and can accelerate breast milk expenditure of postpartum primiparous mothers. Another advantage of breastfeeding is that it helps the mother to recover from the labor process. Breastfeeding during the first few days makes the uterus contract rapidly and slows bleeding (suction on the nipples stimulates the natural hormone oxytocin which will help the uterine involution process) [6]

The importance of the father's role in supporting the mother during breastfeeding gave rise to the term Breastfeeding Father or breastfeeding father. If the mother feels supported, loved and cared for, positive emotions will arise that will increase the production of the hormone oxytocin, so that milk production is smooth.

4. CONCLUSION

Breast milk expenditure can be accelerated by non-pharmacological actions, namely through oxytocin massage, In accordance with the results of the study showed that there is a significant p-value of the effect of oxytocin massage on breast milk expenditure in postpartum mothers with a p value of 0.0001 meaning H_0 is accepted, this shows that there is an influence in giving oxytocin steps on breast milk production in postpartum mothers in Batam City in 2023.

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