

THE EFFECT OF OXYTOCIN MASSAGE USING THE ONSET OF BREASTMILK EXPENDITURE IN THE POSTPARTUM MOTHERS AT CLINIC ASNAH MEDAN TEMBUNG DISTRICT IN 2019

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ABSTRAK

Oxytocin massage is one of the solutions to overcome the smooth production of breast milk by massaging along the spine (vertebrae) to the fifth-sixth rib. Oxytocin massage provides comfort to the mother, reduces swelling (engorgement), reduces breast milk obstruction and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth. This study aims to determine the effect of oxytocin massage with the onset of breastfeeding in postpartum stage IV mothers at the Asnah Clinic, Medan Tembung District in 2019. This study was a quasi experimental study with a one group pre and post test design approach. The population of this study were all 2 hour postpartum mothers at Midwife Asnah's clinic, while the sample in this study were 2 hour postpartum mothers, totaling 30 people with purposive sampling technique. The data analysis technique used chi-square. The result is mean time of colostrum expenditure in post partum mothers in the oxytocin massage intervention group was 4.26 hours and the mean time of colostrum expenditure in post partum mothers in the control group was 5.10 hours, the result of statistical analysis was $p = 0.026 < \alpha = 0.05$. The conclusion is an effect of oxytocin massage with the onset of breastfeeding in postpartum stage IV mothers at the Asnah Midwife Clinic, Medan Tembung District in 2019.

Key words: *oxytocin massage, breast milk*

Introduction

The baby is growth and development is largely determined by the amount of breast milk receives, including energy and other nutrients contained in breast milk. Breast milk without other foodstuffs can meet growth needs until the baby is 6 months old¹. Breast milk is the best source of nutrition that can improve the health of both mother and child. Breastfeeding to babies is very important, especially in the early period of life, therefore it is sufficient for babies to be exclusively breastfed for the first 6 months without adding / or replacing them with other foods or drinks (Kemenkes RI, 2015)². One of the goals of the SDG program (Sustainable Development Goals) is to end all forms of malnutrition with a strategic plan (renstra) to increase the percentage of infants less than 6 months of age who are breastfed. Based on data from the 2017 national health profile of Indonesia, the coverage of exclusive

breastfeeding in Indonesia is 61.33%. This figure has not reached the national target of 80% (Kemenkes RI, 2016)³. The highest percentage of coverage of exclusive breastfeeding was found in West Nusa Tenggara (87.35%), while the lowest percentage was in Papua (15.32%). The percentage of newborns who receive exclusive breastfeeding in the province of North Sumatra is 45.74%, this has not reached the national target expected by the government (Kemenkes RI, 2018)⁴. Many mothers complain that their babies do not want to breastfeed, this can be caused by technical factors such as nipples that are inserted or the wrong position. Apart from these technical factors, breast milk is also influenced by nutritional intake, the mother's psychological condition and is inhibited by the mother's emotional state if the mother feels afraid, tired, embarrassed and feels uncertain or when she feels pain (Pitriani, Andriyani, 2014)⁵. According to

Rusdiarti (2014), it is explained that the achievement of exclusive breastfeeding is influenced by several factors such as reduced milk production caused by hormones and the mother's perception of insufficient breast milk. Postpartum mothers who experienced problems in the breastfeeding process included 38%, 35% less breast care, 15% less than 8x / day breastfeeding frequency, 12% acute and chronic diseases⁶. Oxytocin massage is one solution to overcome the non-smoothness of breast milk production by massaging along the spine (vertebrae) to the fifth-sixth rib. Oxytocin massage provides comfort to the mother, reduces swelling (engorgement), reduces breast milk obstruction and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth (Rahayu, 2016)⁷. Based on the research of Ummah (2014), the results showed that breastfeeding in the oxytocin massage intervention group was faster (Mean = 6.2143) than the control group (Mean = 8.9286). The independent sample test results obtained p value = 0.000 ($p < 0.005$), which means that there is an effect of oxytocin massage on breastfeeding in normal postpartum mothers in Sono Hamlet, Ketanen Village, Panceng Gresik District. So it can be concluded that oxytocin massage can accelerate breastfeeding⁸. From the results of interviews in the initial survey at Asnah's midwife clinic, midwives stated that 3 out of 5 mothers gave birth, 3 had breastfeeding slow or long after delivery. Therefore, the researchers chose the Asnah midwife clinic as the study site because research on the relationship of oxytocin massage to the onset of IV postpartum breastfeeding had not been done before⁹. Based on the description above, the researcher was interested in conducting a research on oxytocin massage in postpartum mothers and took the title " The Effect of Oxytocin Massage using the Onset of Breastmilk Expenditure in the Postpartum Mothers at Clinic Asnah Medan Tembung District in 2019"¹⁰.

Method

This research is a quasi experimental study with a one group pre and post test design approach. In this study, there were 2 groups consisting of an intervention group that received oxytocin massage treatment and a control group that was not given treatment but still carried out observations. The population of this study were all 2 hour postpartum mothers at Midwife Asnah's clinic, while the sample in this study were 2 hour postpartum mothers, totaling 30 people with purposive sampling technique. Purposive sampling is sampling based on considerations and in accordance with the criteria desired by the researcher (Nursalam, 2013). The research sample used in this study were postpartum mothers who fit the researchers' inclusion criteria. Data analysis was carried out in two stages, namely by using Univariate analysis and Bivariate analysis using the Statistical Product and Service Solution (SPSS) 24.0 program.

Result

1.1. Distribution of Average Onset of Breast Milk Expenditure (Hours) among Postpartum mothers in the Intervention Group

Group	Mean (hour)	Varians	N
Dispensing of breastmilk in postpartum mothers in the intervention group	4,26	.073	15

Table 1.1, it can be seen that the mean onset of postpartum maternal breastfeeding in the intervention group was 4.26 hours.

1.2. Distribution of Average Onset of Breast Milk Expenditure (Hours) among Postpartum mothers in the Control Group

Group	Mean (hour)	Varians	N
Dispensing of breastmilk in postpartum mothers in the control group	5,10	1,202	15

Table 1.2, it can be seen that the average onset of postpartum maternal breastfeeding in the control group was 5.10 hours.

1.3. Difference in Average Onset of Breast Milk Expenditure (Hours) in Postpartum Mothers in the Intervention Group and the Control Group at the Asnah Midwife Clinic

No.	Group	Mean (hour)	ρ value	N
1	Intervention	4,26	0,026	15
2	Control	5,10		

Based on table 1.3, it can be seen that in the intervention group the average onset of breastfeeding was 4.26 hours, while in the control group it was 5.10 hours. The statistical test results obtained ρ value = 0.026 ($\rho \leq 0.05$), which means that there is an effect of oxytocin massage with the average onset of breastfeeding.

Discussion

1. Average of onset of breast milk expenditure (hours) in postpartum mothers in the intervention and control groups

Based on the results of the study, it showed that the intervention group had a mean onset of breastfeeding at 4.26 hours. In this study, oxytocin massage was carried out based on the Standard Operating Procedure (SOP) given to post partum mothers for 2 hours. While the results obtained in the group that did not get oxytocin massage (control) the mean onset of breastfeeding was 5.10 hours. With a long time the release of colostrum can be accelerated by non-pharmacological actions, namely through massage or stimulation of the spine, nerves will stimulate the medulla oblongata directly sending messages to the hypothalamus in the posterior hypophise to release oxytocin which causes the breasts to secrete milk. With a massage in the spinal area, it will relax tension and relieve stress so that the oxytocin hormone comes out and will help the release of breast milk. In

addition, the baby sucks on the nipple immediately after the baby is born with a normal baby, colostrum that drips or comes out is a sign of active oxytocin reflex. The results of this study are relevant to the results of Endah's (2011) study, which found that the treatment group spent an average of 5.8 hours of breastfeeding. This study was conducted on post partum mothers who gave birth at 2 hours post partum or after post partum mothers had early mobilization.

Massage along the spine (vertebrae) to the fifth-sixth rib, will stimulate the prolactin hormone produced by the anterior pituitary and oxytocin produced by the posterior pituitary, so that breast milk can automatically run more smoothly. In addition to facilitating breastfeeding, oxytocin massage provides comfort to postpartum mothers, reduces swelling (engorgement), reduces milk blockage, stimulates the release of the hormone oxytocin, maintains milk production when the mother and baby are sick. The mother's feeling of comfort during massage is a prerequisite for the success of the oxytocin massage. Breastmilk comes out from the first day to the fourth or seventh day after delivery, breast milk will come out on the first day (<24 hours). By not doing oxytocin massage, colostrum expenditure will experience a delay compared to mothers who received oxytocin massage. The hormone oxytocin will come out through stimulation to the nipples through the baby's mouth suction or through a massage on the spine of the baby's mother, with a massage on the spine the mother will feel calm, relaxed, increase the pain threshold and love her baby, so that the hormone oxytocin comes out and The milk quickly comes out.

Mothers who are not given oxytocin massage experience delays in the release of colostrum, this can occur because the mother's nipples are very small so that the production of the hormone oxytocin and the hormone prolactin will continue to decrease and the milk will stop. In addition, the expenditure of breastmilk is strongly

influenced by psychological factors, mothers who are always in a state of depression, sadness, lack of self-confidence and various forms of emotional tension will reduce the volume of breast milk and even milk production will not occur.

2. The Effect of Oxytocin Massage on the Average Onset of Breast Milk Expenditure in the Intervention and Control Groups

The results of calculations with the statistical analysis of the Independent T-Test on 15 respondents in the intervention group and 15 respondents in the control group obtained p value = 0.026 (<0.05), which means statistically H_0 is rejected, thus it can be concluded that there is an effect on the average time of spending on breastmilk between the intervention group and the control group. These results indicated that there was a difference in the time of release of breastmilk between post partum mothers who were massaged with oxytocin (treatment) and mothers who were not given oxytocin massage (control). The oxytocin massage treatment is a way to help accelerate the release of breast milk or colostrum by stimulating massage on both sides of the spine, starting from the neck towards the shoulder blades followed by the ribs under the two breasts of the post partum mother.

Through massage or stimulation of the spine, neurotransmitters will stimulate the medulla oblongata to send messages directly to the hypothalamus in the posterior hypofise to release oxytocin, which causes the breasts to release milk. With a massage in the spinal area, it will also relax tension and relieve stress so that the oxytocin hormone comes out and will help the excretion of breast milk. Colostrum that drips or comes out is a sign of active oxytocin reflex. In fact, breastfeeding is not an activity that occurs automatically, it requires things that can motivate and change the way the mother views breastfeeding. Lack of smooth expressing of breast milk after birth needs to be addressed because

this will affect exclusive breastfeeding by the mother.

Research by Ummah in 2014 massage / massage is an effective supportive therapy to reduce physical discomfort and improve mood disorders. Reducing discomfort in nursing mothers will help smooth the reduction of breast milk. The increase in milk production in the treatment group can have a relaxing effect on the mother, which indirectly stimulates the hormone oxytocin, which can help the process of smooth milk production. In this study, the treatment group average colostrum expenditure time was 4.26 hours shorter than the control group average 5.10 hours. By doing a massage along the spine (vertebrae) to the fifth-sixth rib bone will stimulate the prolactin hormone released by the anterior pituitary and oxytocin hormone released by the posterior pituitary, so that milk comes out which occurs because the smooth muscle cells around the breast gland shrink. The cause of the muscles to shrink is the hormone oxytocin. In addition to facilitating breastfeeding, oxytocin massage provides comfort to postpartum mothers, reduces swelling (engorgement), reduces milk blockage, stimulates the release of the hormone oxytocin, maintains milk production when the mother and baby are sick. The feeling of comfort felt by the mother during the massage process is a prerequisite for the success of the oxytocin massage.

Conclusion

Based on the results of the analysis and discussion of the effect of oxytocin massage with the onset of breastmilk release in fourth stage postpartum mothers at the Asnah clinic in 2019, it can be concluded:

1. The mean time of colostrum removal in post partum mothers in the oxytocin massage intervention group was 4.26 hours.
2. The mean time of colostrum expulsion in post partum mothers in the control group was 5.10 hours.

3. Oxytocin massage has an effect on the average time of releasing breastmilk in post partum mothers (p value = 0.026).

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