

The Effectiveness of Oxytocin Massage for the Breast Milk Production

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Abstract: Breast milk is the main source of nutrition for babies who have not been able to digest solid food, the benefits of breast milk will greatly increase if the baby is only given breast milk for the first 6 months of life. The phenomenon that is currently found is that the coverage of breast milk is increasingly decreasing with various factors causing it. Oxytocin massage is a massage that can trigger the release of oxytocin and oxytocin is a hormone that is needed to remove milk. The purpose of this study was to determine the effectiveness of oxytocin massage for the smoothness of breast milk. This research method uses quasi experiment in 30 respondents divided into 2 intervention groups. Parametric statistics used to test the differences in the results of the intervention group and the control group are the independent test. The results showed the mean value of smoothness of breast milk in the intervention group after being given oxytocin massage 661.20 and in the control group given endorphin massage 598.60, with p value $0.454 > 0.05$, which means there was no difference in the smoothness of breast milk in the intervention group and in the control group. For the test results there is no difference between the intervention group and the control group, meaning that oxytocin massage and endorphin massage are equally influential to increase milk production.

Keywords: oxytocin massage, breast milk production

1. Introduction

Exclusive breastfeeding is only breastfeeding for 6 months, without the addition of other liquids and without the addition of solid food. The experts found that the benefits of breast milk will greatly increase if the baby is only given breast milk for the first 6 months of life. Breast milk can help maintain the health of babies with antibodies that can prevent infection⁽¹⁾.

In Indonesia, babies who received exclusive breastfeeding in 2014 amounted to 45.55%. The Ministry of Health itself has set a target of exclusive breastfeeding coverage by 2014 to 80%. The percentage of babies from 0-5 months who still received exclusive breastfeeding was 54.0%, while infants who had received exclusive breastfeeding until the age of six months were 29.5%⁽²⁾. Will state the percentage of exclusive breastfeeding for infants 0-6 months in Central Java in 2015 were 61.6%, a slight increase compared to the percentage of exclusive breastfeeding in 2014 which was 60.7%⁽³⁾. When viewed in the city of Semarang also showed no greater numbers, namely in 2009 exclusive breastfeeding of 3,138 (24.63%) of 12,740 infants aged 0-6 months available⁽⁴⁾.

Signs of the adequacy of breastfeeding infants are babies will urinate 6-8 times a day, there is an average weight gain of 500 grams per month, babies often suckle 8-12 times a day, babies look healthy, good skin color and turgor, quite active⁽⁵⁾.

Breast milk production can be influenced by the mother's psychic. If the mother is anxious, lack of confidence and various forms of emotional tension will reduce the volume of breast milk and even until the milk production stops altogether. Breast milk production can be influenced by the mother's psychic. If the mother is anxious, lacking confidence and various forms of emotional tension will reduce the volume of breast milk and can even stop the production of milk completely. One of the factors causing

mothers not to give exclusive breastfeeding is because the mother thinks that her milk comes out a minute or does not come out, so the baby is not satisfied. This can cause a decrease in milk production in the first days after birth due to reduced stimulation of the hormone prolactin and the hormone oxytocin which have a role in the smoothness of milk and milk production⁽²⁾. Research conducted by Blair (2003) shows the results that 95 postpartum mothers decrease breast milk production if the baby's suction stimulation is reduced, so it can reduce the stimulation of the hormone prolactin and the hormone oxytocin.

Efforts to stimulate the prolactin and oxytocin hormones in mothers after childbirth in addition to expressing breast milk can also be done by taking care and breast massage, cleaning the nipples routinely, breastfeeding infants even if the milk has not come out, breastfeeding early and regularly and also doing oxytocin massage⁽¹⁾. Oxytocin massage is one way to overcome the smooth production of breast milk. Oxytocin massage is carried out along the mother's spine which will have a calm, relaxing effect so that the hormone oxytocin comes out and breast milk comes out quickly⁽⁶⁾.

The mechanism of oxytocin massage is when the mother feels more comfortable and relaxed to reduce the stress that causes the hormone cortisol is reduced, which results in no inhibition of the hormone oxytocin which plays a role in the smooth release of milk produced by the hypothalamus.

One of the benefits of oxytocin massage is to increase the reflex let down, which means that breast milk quickly drops. This was demonstrated by the research of DiahEko Martini (2015) which showed the results of oxytocin administration were effective in increasing the expenditure of breast milk in the postpartum in the Melati Room of RSUD Dr. Sugiri Lamongan Regency. Based on the phenomena obtained. The researchers are interested to know the Effectiveness of Oxytocin Massage for smooth milk in the District of Tembalang District.

2. Methods/Approach

This research is a quantitative study with quasi-experimental research design and the research design is a pre-post test with a control group. Pretest-posttest with control group design is used by researchers to determine the treatment (treatment) that is most influential through the difference between the intervention group with the control group⁽⁷⁾.

The sample in this study was 30 postpartum mothers in the Tembalang district. The sampling technique in this study is the purposive sampling technique, where the researcher chooses respondents based on predetermined criteria so that the respondent can provide relevant data needed by research researchers. The research sample was divided into two groups, with each group being measured first the volume of ASI, then given intervention for 3 times. The intervention group was given oxytocin massage intervention and the control group was given an endorphin massage intervention. After the intervention is measured again the volume of ASI. The data made in this study are pre-post ASI volume in the intervention group and the control group by observing the frequency of breastfeeding and duration of breastfeeding for 24 hours to produce data on ASI volume in cc. The data obtained will be analyzed data to determine the effectiveness of oxytocin massage on the smoothness of breast milk. The statistical test used is a different test by looking at the source of the data in the form of a ratio scale (numeric) so that the data are tested for normality by first using saphirowilk. Parametric statistics used to test the differences in the results of the intervention group and the control group are the independent test.

3. Results dan discussion

Table 1: The difference in the volume of breast milk in the intervention and control groups in the Independent Practice Midwife Tembalang District

Variable	Mean	P value
Intervention group	661.2	0.454
Control group	598.6	

Table 1 shows the mean value of the smoothness of breast milk in the intervention group after being given oxytocin massage 661.20 and in the control group who were given endorphin massage 598.60, with p-value 0.454 > 0.05 (significance level), which means there was no difference in the smoothness of breast milk in the intervention group and in the control group.

The results of the study in each oxytocin massage group and endorphin massage group showed there was an influence of oxytocin massage and endorphin massage on the smoothness of breast milk. Oxytocin massage is an act of spinal massage at the cost of 5-6 to the scapula which will accelerate the work of the parasympathetic nerve stimulating the posterior pituitary to release oxytocin. Oxytocin massage can also be defined as an act of massage by nursing mothers in the form of massages on the back of the mother to increase the production of the hormone oxytocin. So that it can speed up the healing of wounds used in placental implantation, prevent bleeding, and increase milk production. Oxytocin stimulation massage for breastfeeding mothers serves to

stimulate the hormone oxytocin in order to facilitate breastfeeding and increase maternal comfort⁽⁸⁻¹⁰⁾

Endorphin massage is also a way of managing to increase milk expenditure and reduce pain. The psychological state that is calm will trigger the release of endorphin hormones that affect the expenditure of breast milk. Endorphin massage is a mild touch or massage therapy that stimulates the body to release endorphin compounds which are pain relievers and can create a feeling of comfort⁽¹¹⁾

In theory, oxytocin massage and endorphin massage can influence the increase in milk production, according to this study the results show there is an influence of oxytocin massage and endorphin massage on the smoothness of breast milk, from the mean value there is a difference in the smoothness of breast milk before intervention and after intervention, so it can be concluded that intervention with oxytocin massage and endorphin massage influence the increase in milk production. This can be caused by other factors that affect milk production, including maternal health status, the healthy physical condition will support optimal milk production both in quality and quantity.⁽¹²⁾

Factors that can affect breast milk are anxious. After giving birth the mother will find it hard to care for her baby or carry out daily activities. These conditions result from the mother to feel helpless and anxious about her and her baby's health⁽¹³⁾. This anxiety causes the mother to disturb and feels depressed. When the mother experiences stress, there will be a release of adrenaline which causes vasoconstriction of the alveoli blood vessels. As a result, there is an obstacle from the letdown reflex so that milk does not flow and experience a dam⁽⁵⁾.

Another factor is that the removal of milk is influenced by the baby's sucking as well as by a receptor located in the ductal system. So the role of prolactin and oxytocin is necessary for addition to other factors during the breastfeeding process.

The success of breastfeeding is supported by psychological preparation, which has been prepared since pregnancy. The desire and strong motivation to breastfeed her baby will encourage mothers to always try to breastfeed their babies under any circumstances. With strong motivation, the mother will not give up easily even though there are problems in the process of breastfeeding her baby, thus the mother will always breastfeed her baby so that stimulation on the nipple will affect the letdown reflex so that the flow of ASI becomes smooth^(10, 12)

From these factors which are often encountered when mothers give birth, the researchers helped to overcome the problems that can inhibit the production of breast milk by oxytocin massage intervention and endorphin massage to increase production of the hormone prolactin and the hormone oxytocin which triggers increasing milk production, this is evidenced by the presence of the influence of oxytocin massage in the intervention group and the influence of endorphin massage in the control group on the smoothness of breast milk. For the test results there is no difference between the intervention group and the control

group, meaning that oxytocin massage and endorphin massage are equally influential to increase milk production, but looking at the mean values it can be suggested oxytocin massage is better than endorphin massage.

The results of this study are the same as the study conducted by EmySuryani in 2016 the effect of oxytocin massage on breast milk expenditure in postpartum mothers in the midwife region of Klaten District with indicators of body weight, frequency of babies urinating, frequency of babies breastfeeding in a day and sleep duration of babies after breastfeeding, using a test Dependent T-test statistic with Wilcoxon. The results of data analysis showed that p-value = 0.001 ($p < 0.5$ so that H_0 was rejected H_a was accepted. He suggested that most postpartum mothers felt the benefits of oxytocin massage where milk production before oxytocin massage became smooth after oxytocin massage. also makes mothers feel more comfortable and fatigue after childbirth is also reduced⁽¹⁴⁾.

4. Conclusion

Results of the research show that there is no difference between oxytocin massage and endorphin massage, which means that oxytocin massage and endorphin massage are equally effective in increasing milk production, but looking at the mean values it can be suggested that oxytocin massage is better than endorphin massage.

5. Other recommendations

Oxytocin massage can be performed on nursing mothers to help smooth milk production.

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