

THE DIFFERENCE BETWEEN OXYTOCIN MASSAGE AND WOOLWICH MASSAGE ON THE SMOOTHNESS OF BREAST MILK FLOW IN POST-TERM MOTHERS

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ABSTRACT

Background: Exclusive breastfeeding is the best food for babies given according to needs for 6 months. However, not all postpartum mothers immediately produce breast milk, so efforts are needed to increase the smoothness of breast milk in postpartum mothers. Efforts to increase the smoothness of breast milk include oxytocin massage and woolwich massage. Objectives: To determine the smoothness of breast milk production in postpartum mothers after being given oxytocin massage intervention. To determine the smoothness of breast milk in postpartum mothers after being given woolwich massage intervention. To determine the differences between oxytocin massage and woolwich massage on the smoothness of breast milk production in postpartum mothers. Methods: The research design is a two-group pretest and posttest design, which is a type of experimental research that compares two groups of research subjects. The sampling technique used quota sampling on 30 mothers after giving birth, with 15 people given oxytocin massage and 15 others given Woolwich massage twice a day (morning-evening) for 3 days. The data analysis technique used non-parametric statistics, the Wilcoxon test and the Mann-Whitney test. Results: The smoothness of breast milk production in the oxytocin massage group had an average score of 8.00 and the Woolwich massage group had an average score of 6.50. The pre- and post-massage test in the oxytocin massage group obtained an average score of 8 while the Woolwich massage group had an average score of 6.5. Mann Whitney between the oxytocin massage group and the woolwich massage showed a p value (0.000) < 0.05, meaning that there is a difference in the provision of oxytocin massage and woolwich massage on the smoothness of breast milk in postpartum mothers in the work area of the Trucuk II Klaten Health Center. Conclusion: There is a difference in the provision of oxytocin massage and woolwich massage on the smoothness of breast milk in postpartum mothers in the work area of the Trucuk II Klaten Health Center.

ABSTRAK

Latar Belakang : ASI eksklusif adalah makanan terbaik untuk bayi yang diberikan sesuai kebutuhan selama 6 bulan. Tetapi tidak semua ibu nifas langsung mengeluarkan ASI sehingga perlu adanya upaya untuk meningkatkan kelancaran ASI pada ibu nifas. Upaya meningkatkan kelancaran ASI diantaranya yaitu pijat oksitosin dan woolwich massage. Tujuan : Untuk mengetahui kelancaran ASI pada ibu nifas setelah diberikan intervensi pijat oksitosin, untuk mengetahui kelancaran ASI pada ibu nifas setelah diberikan intervensi woolwich massage, untuk mengetahui perbedaan pijat oksitosin dan woolwich massage terhadap kelancaran ASI pada ibu nifas. Metode Penelitian : Jenis penelitian yang digunakan yaitu pra eksperimen two group pretest dan posttest design. Teknik pengambilan sampel kuota sampling. Diperoleh 30 sampel yang memenuhi kriteria. Teknik analisa data yang digunakan statistik non parametrik uji Wilcoxon dan uji Mann-Whitney. Hasil Penelitian : Kelancaran ASI kelompok pijat oksitosin rata-rata 8,00 dan woolwich massage rata-rata 6,50. Hasil uji Mann-Whitney kelompok pijat oksitosin memiliki nilai rerata atau mean rank 21,03 sedangkan rerata kelompok woolwich massage memiliki nilai mean rank 9,97. Hasil uji menunjukkan nilai signficancy

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(p) = 0,000 dimana *p value* (0,000) < 0,05 artinya terdapat perbedaan pemberian pijat oksitosin dan *woolwich massage* terhadap kelancaran ASI pada ibu nifas di wilayah kerja Puskesmas Trucuk II Klaten
Kesimpulan : Terdapat perbedaan pemberian pijat oksitosin dan *woolwich massage* terhadap kelancaran ASI pada ibu nifas di wilayah kerja Puskesmas Trucuk II Klaten

PENDAHULUAN

Efforts to overcome the problem of low breast milk production in mothers after giving birth can be done in various ways. The methods used to stimulate breast milk production include oxytocin and Woolwich massage. Both massage methods have advantages and disadvantages that are often not understood by the public. Mothers after giving birth apply massage to stimulate breast milk production cannot be separated from the understanding they have, including counseling/training received during pregnancy. Choosing an effective and efficient massage method is important, so it is necessary to conduct a study on oxytocin and Woolwich massage in increasing breast milk production.

Oxytocin massage is one solution to overcome the difficulty of breast milk production. Oxytocin massage is a massage along the spine (vertebrae) to the fifth-sixth costae bones using both fists with the thumbs pointing forward. Another technique that can affect the smoothness of breast milk is woolwich massage, which aims to increase the effects of prolactin reflex and oxytocin reflex (let down reflex). Massage is performed on the lactiferous sinus area, precisely 1-1.5 cm above the areola mammary. The results of an initial study at the Mawung Klaten Pratama Clinic found that mothers after giving birth experienced breast milk that did not flow smoothly while they did not know how to stimulate the production and flow of breast milk.

The purpose of this study was to determine the smoothness of breast milk in postpartum mothers after being given oxytocin massage intervention, to determine the smoothness of breast milk in postpartum mothers after being given woolwich massage intervention, to determine the difference between oxytocin massage and woolwich massage on the smoothness of breast milk in postpartum mothers.

METHOD

The research design is a two-group pretest and posttest design, which is a type of experimental research that compares two groups of research subjects. Sampling in the Trucuk II Klaten Health Center Working Area used a non-probability sampling technique with a sampling quota of 30 respondents for postpartum mothers, then divided into 2 as an oxytocin massage group of 15 people and another 15 people as a woolwich massage group. Oxytocin massage and woolwich massage were given twice a day in the morning and evening on days 2, 3 and 4. After 3 days of massage, it was evaluated with an observation sheet on breast milk production in both the oxytocin massage and Woolwich massage groups. The data analysis used was descriptive univariate analysis by calculating the frequency distribution and bivariate analysis using non-parametric statistical tests, the Wilcoxon test and the Mann-Whitney test.

HEALTH CODE OF ETHICS

The eligibility of the research ethics code from Dr. Moewardi Surakarta Hospital with letter number: 1.648 / VI / HREC / 2024

RESULTS AND DISCUSSION

This study is to compare oxytocin massage with Woolwich massage on breast milk production. The results of the study are presented as follows:

1. Univariate Analysis

In this analysis, several frequency distribution tables of respondent characteristics in this study will be included, divided into age groups, education level, parity and occupation, as described in the table below.

CHARACTERITIC	F	%
AGE		
<u>< 20 year</u>	0	0
<u>20 – 25 year</u>	28	93,3
<u>>35 year</u>	2	6,7
EDUCATION		
Junior High School	2	6,7
High School	23	76,7
University	5	16,7

The table above shows that the respondents are mostly aged 20-35 years, 28 respondents (93.3%) and others are > 35 years old. Frequency distribution based on last education can be seen that the most respondents are high school graduates as many as 23 respondents (76.7%), there are 2 respondents whose education is junior high school (6.7%) and 5 respondents whose education is college (16.7%). While for parity it can be seen that the most respondents are multipara, namely 20 respondents (66.7%) and primipara, namely 10 respondents (33.3%). Distribution of response characteristics based on occupation that the most are unemployed, namely 24 respondents (80%). While respondents who work are 6 respondents (20%).

2. Bivariate Analysis

- a. Changes in the smoothness of breast milk production in the Oxytocin Massage group before and after massage

The results of the Wilcoxon test obtained an average score of 8.00 with 15 respondents, meaning that there was an increase in the smoothness of breast milk before and after oxytocin massage. The p value obtained a result of $0.001 < 0.05$, so it can be said that oxytocin massage is effective in increasing the smoothness of breast milk production in postpartum mothers.

- b. Changes in the smoothness of breast milk production in the Woolwich Massage group before and after massage.

The results of the Wilcoxon test obtained an average score of 6.50 with 15 respondents, meaning that there was an increase in the smoothness of breast milk before and after Woolwich massage, although there were 3 respondents who had the same pretest and posttest results. The p value obtained a result of $0.002 < 0.05$, it can be said that woolwich massage is effective in increasing the smoothness of breast milk production in postpartum mothers.

- c. Differences Between Oxytocin Massage and Woolwich Massage on Smooth Breast Milk Production

Data analysis using the Man Whitney test obtained a p value ($0.000 < 0.05$), which means that there is a difference in the provision of oxytocin massage and Woolwich massage

on the smooth production of breast milk in postpartum mothers in the work area of the Trucuk II Klaten Health Center.

One of the internal factors that can affect the smoothness of breast milk is the mother's age. From the characteristics of the respondents, it was found that most respondents were of reproductive age (93.3%). Age affects the smoothness of breast milk, where mothers of reproductive age produce more breast milk because the prolactin hormone in the mother's body is produced faster than mothers aged >35 years ([Mutmainnah & Fadillah, 2021](#)).

The majority of mothers' last education was high school level at 76.7% and only a small portion with a college education (16.7%). A person's level of education can certainly affect a person's perspective on a problem and how to find solutions to the problem ([Widiastuti, et al., 2021](#)).

The frequency distribution of respondent characteristics based on parity, the most common was multipara, namely 20 respondents (66.7%). Someone who has just given birth for the first time usually has less knowledge and experience in breastfeeding. In addition, the psychological readiness between primipara and multipara is very different. A primipara will be more easily anxious and have an unstable psychological condition, which will affect the release of hormones that play a role in the production of breast milk ([Retnawati & Khoriyah, 2022](#)).

Most of the respondents' mothers do not work (80%). Mothers who do not work tend to focus more on caring for their babies and families, so that they can provide maximum breast milk. Thus, mothers who do not work have more time to care for their children compared to working mothers, who have to be outside the home for a certain period of time ([Olya, 2023](#)).

The formation of breast milk begins at the beginning of pregnancy until the baby is born. The baby's sucking on the mother's nipple stimulates the nerves to pass through the spinal column to the pituitary gland in the brain. Increased breast milk production is influenced by the presence of polyphenols and steroids which affect the prolactin reflex to stimulate the alveoli that work in the process of breast milk formation ([Rofiasari, et al., 2023](#)). To increase the smoothness of breast milk, several methods can be done, including paying attention to the mother's diet, maintaining rest, maintaining mental peace, maintaining breast condition, and performing oxytocin massage. ([Juliastuti & Sulastri, 2019](#)).

Based on the results of the study, there was a significant difference in the provision of oxytocin massage and woolwich massage to postpartum mothers in the work area of the Trucuk II Klaten Health Center. This is because when oxytocin massage is performed, the nerves in the back stimulate the release of endorphins in the body which indirectly then stimulates the release of the oxytocin hormone which plays a role in the release of breast milk. Irregular breast milk release can inhibit the breastfeeding process because irregular breast milk release can also inhibit breast milk production. Irregular and inhibited breast milk release and breast milk production can be influenced by the mother's condition such as discomfort and not being relaxed because this condition affects the release of the oxytocin hormone which plays a role in facilitating breast milk release. This is in accordance with Purnomo (2016) that massage can reduce tension and provide calm to nerve cells. Massage can also make the body fit because it trains muscles and provides a relaxing effect ([Wong, 2012](#)). This study also proved that after oxytocin massage twice a day for 3 days, respondents felt relaxed and comfortable and most felt good changes in breast milk production.

When woolwich massage was done twice a day for 3 days, respondents also felt good changes in breast milk production. However, unlike back massage, this is not caused by the release of the oxytocin hormone which plays a direct role in breast milk production, but is caused by the provision of woolwich massage which is massaged above the breast milk warehouse so that breast milk that is retained in the breast milk warehouse can come out and this massage can smooth blood flow in the duct system

because it relaxes the tissue. Not only does it trigger breast milk production, stimulation of the breasts can also produce breast milk because woolwich massage releases the hormone prolactin which plays a role in breast milk production to maintain adequate breast milk after it is released.

This is in line with the research conducted by (Aryani, Yeni., Hasan Zuchrah., Atikasari, 2019) entitled "Differences in Woolwich Massage and Oxytocin Massage on Breast Milk Flow in Postpartum Mothers on Days 1-3 at the Independent Practice of Midwife Dince Safrina, Pekanbaru City" obtained an average result of woolwich massage of 9.00 and an average of oxytocin massage of 9.93. The results of the Mann Whitney U statistical test with a significance level of 95% showed that there was a difference in breast milk flow between mothers who received woolwich massage and mothers who received oxytocin massage with a p-value of 0.001.

CONCLUSION

The study of the differences between oxytocin massage and woolwich massage on the smoothness of breast milk production was carried out in the work area of Trucuk II Health Center. A sample of 30 mothers after giving birth were massaged twice a day (morning-evening), namely oxytocin massage for 15 people and also woolwich massage for 15 people. The smoothness of breast milk production was observed using an observation sheet. The smoothness of breast milk production in the oxytocin massage group had an average score of 8.00 and woolwich massage had an average score of 6.50. The pre- and post-massage test in the oxytocin massage group obtained an average score of 8 while woolwich massage had an average score of 6.5. Mann Whitney between the oxytocin massage group and woolwich massage showed a p value (0.000) <0.05, meaning that there was a difference in the provision of oxytocin massage and woolwich massage on the smoothness of breast milk in postpartum mothers in the work area of Trucuk II Health Center, Klaten

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