

COMPARISON OF THE EFFECTIVENESS OF OXYTOCIN MASSAGE WITH WOOLWICH MASSAGE ON BREAST MILK EXPRESSION IN POSTPARTUM MOTHERS AT THE MEISYA MEDIKA CLINIC IN 2023

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Abstract

Background: The basic capital to form a quality human being starts in the womb accompanied by breastfeeding from an early age, especially exclusive breastfeeding. Efforts that can be made to stimulate the hormones prolactin and oxytocin in the mother after giving birth are to cause a feeling of relaxation in the mother by massaging to stimulate the nerve cells in the breasts. **Research objective:** to determine the comparison of the effectiveness of oxytocin massage with Woolwich massage on breast milk production in postpartum mothers at the Meisya Medika Clinic. **Research method:** The research design uses a non-equivalent control group design, that is, the research subjects are not randomly selected to be involved in the experimental group and the control group and both receive a pre-test and post-test group. The population in this study were all postpartum mothers who gave birth at the Meisya Medika Clinic in 2023 with a sample size of 106 people, 53 people in each group. The sampling technique is non probability sampling with purposive sampling type. The instruments for collecting data are observation sheets, and hypothesis testing using the Mann – Whitney Test because it is not normally distributed to find out whether the hypothesis is accepted or rejected. **Research results and conclusions:** There is a comparison of the effectiveness of oxytocin massage with Woolwich massage on breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023 with a calculated z value of 42,504 and p value = 0.012. Suggestions for postpartum mothers are that they can use oxytocin massage or Woolwich massage to increase breast milk production and future researchers can develop research with other non-pharmacological therapies such as giving papaya fruit, soy milk, katuk leaves to increase breast milk production.

Keywords: Breast Milk Production, Oxytocin Massage, Postpartum Mothers, Woolwich Massage

Introduction

The basic capital to form a quality human being starts in the womb accompanied by the provision of breast milk (ASI) from an early age, especially exclusive breastfeeding. Breastfeeding is a way to protect, improve and support the health of babies and young children. The World Health Organization (WHO) recommends that every newborn receive exclusive breast milk (Sinaga & Br Sembiring, 2022).

Breast milk is the best food for babies at the beginning of life, not only because breast milk contains enough nutrients but also breast milk contains antibodies that protect babies from infection. Breastfeeding is very important for optimal growth and development, both physically and mentally, and for baby's intelligence. Breast milk is a living fluid that changes and responds to the baby's needs as it grows. Breast milk contains important anti-infective substances that help babies fight infections and diseases by producing immunoglobulin which speeds up the baby's immune system by killing bacteria and viruses (Jayanti & Yulianti, 2022).

The government regulates breastfeeding in Law Number 33 of 2012 to support mothers who breastfeed exclusively. This regulation states that mothers are obliged to breastfeed their babies exclusively from birth until they are six months old. But in reality, the realization of these government regulations is still lacking. Failure in the breastfeeding process is often caused by several factors, including socio-cultural changes, the mother's physical factors, health worker factors, the mother's diet, the baby's birth weight, use of contraceptives and psychological factors. The smooth flow of breast milk is greatly influenced by psychological factors because the mother's feelings can inhibit or increase the release of oxytocin (Mardjun, Korompis & Rompas, 2019).

Breastfeeding can save more than 820,000 children under 5 years old if all children aged 0-23 months receive exclusive breast milk. Ineffective breastfeeding can cause various health problems, including malnutrition, infectious diseases, and developmental disorders in children and toddlers. Besides that, breast milk can also reduce the health costs of children in the family (WHO, 2022). The percentage of exclusive breastfeeding for babies aged 0-5 months is 71.58% in 2021. This figure shows an improvement from the previous year which was 69.62%.

However, most provinces still have a percentage of exclusive breastfeeding below the national average (Ministry of Health, 2021). One of the reasons for the low coverage of exclusive breastfeeding for babies under six months of age is because breast milk production in postpartum mothers is hampered in the first days after delivery so that most babies receive formula milk when they are born. Not all postpartum mothers immediately produce breast milk because breast milk production is a very complex interaction between mechanical stimulation, nerves and various hormones that influence the release of oxytocin (Soetjningsih, 2015).

Other obstacles to breastfeeding are caused by the mother's anxiety and fear about the lack of breast milk production and the mother's lack of knowledge about the breastfeeding process. Many mothers stop breastfeeding their babies in the first month postpartum due to sore nipples, swollen breasts, difficulty in latching properly and their perception of insufficient breast milk production, so that mothers are not sure they can give breast milk to their babies. Many mothers do not breastfeed their babies on the first day of breastfeeding due to the mother's anxiety and fear about the lack of breast milk production and the mother's lack of knowledge about the breastfeeding process (Widyawati & Sari, 2022).

Efforts that can be made to stimulate the hormones prolactin and oxytocin in mothers after giving birth are by causing feelings of relaxation in the mother, namely by massaging which can stimulate the nerve cells in the breasts. To prevent and treat lactation problems, a person can perform interventions, especially massage. Massages that can be done to help expel colostrum and facilitate breast milk in postpartum mothers include oxytocin massage. Oxytocin massage is done on the back, namely along the spine (vertebrae) to stimulate the production of the hormone oxytocin after delivery. Oxytocin massage is done to stimulate the oxytocin reflex or let down reflex (Dewi, Basuki, & Wulandari, 2022).

Apart from that, Woolwich massage also helps to release colostrum and facilitate breast milk in postpartum mothers, namely with Woolwich massage which is carried out in the lactiferous sinus area, precisely 1-1.5 cm above the mammary areola, with the aim of removing the breast milk in the lactiferous sinus. Woolwich massage will stimulate the release of hormones to produce breast milk (Widadi, et al., 2023).

At the Meisya Medika Tahun Clinic, many postpartum mothers found breastfeeding problems. The causes of these problems are lack of self-confidence, anxiety and the baby crying, refusing to breastfeed because the milk has not come out, flat nipples and sore nipples. Postpartum mothers or their families do not know about efforts to facilitate breastfeeding. Efforts have been made to increase breast milk production at the Meisya Medika Tahun Clinic, namely providing education about breast care, correct breastfeeding techniques, providing nutritious food, and encouraging breastfeeding as often as possible, but there has been no oxytocin massage with Woolwich for postpartum mothers.

Based on the description above, the researcher is interested in conducting research to determine the comparison of the effectiveness of oxytocin massage with Woolwich massage on breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023.

Research Methods

The research design uses a non-equivalent control group design, that is, research subjects are not randomly selected to be included in the experimental group and control group and both groups receive a pre-test and post-test. The population in this study were all postpartum mothers who gave birth at the Meisya Medika Clinic in 2023 with a sample size of 106 people, 53 people in each group. The sampling technique is non-probability sampling with purposive sampling type. The data collection instrument was an observation sheet, with the initial stage of the research before the oxytocin massage and Woolwich massage interventions were carried out using a measuring cup and recording the width of the observations provided, then the oxytocin massage and Woolwich massage interventions were carried out with different people 2 times a day for 3 days. After the 7th day of implementing the oxytocin massage and Woolwich massage, the researcher measured the volume of breast milk again after the oxytocin massage and Woolwich massage intervention with a measuring cup and recorded the width of the observations provided. To see whether the hypothesis results are accepted or rejected, use the Mann – Whitney test because it is not normally distributed.

Research Result

Table 1. Distribution of Respondents Based on Age, Parity, IMD, Frequency of Breastfeeding, and Postpartum Mother's Breast Milk Production at the Meisya Medika Clinic in 2023

	Respondent Characteristics			
	Oxytocin Massage Group		Woolwich Massage Group	
	f	%	f	%
Age				
17 - 25 year	19	35.8	21	39.6
26 - 35 year	30	56.6	26	49.1
36 - 45 year	4	7.5	6	11.3
Paritas				
Primipara	28	52.8	35	66.0
Multipara	25	47.2	18	34.0
IMD Status				
IMD	53	100.0	53	100.0
Frequency of Breastfeeding				
< 8Times/day	21	39.6	13	24.5
≥ 8Times/day	32	60.4	40	75.5

Based on table 1, it can be seen that the characteristics based on the age of mothers giving birth at the Meisya Medika Clinic in 2023 in the oxytocin massage group, the majority were 26 - 35 years, 30 people (56.6%), for the characteristics based on parity, the majority were 28 people (52.8%), the majority were primiparous mothers. 53 respondents did IMD (100%) and the majority of respondents breastfed ≥ 8 times / day, 32 people (60.4%). Meanwhile, the characteristics of respondents in Woolwich massage based on the majority age of 26 - 35 years were 26 people (49.1%), for characteristics based on parity the majority were primiparous mothers as many as 35 people (66%), the majority of respondents did IMD as many as 53 people (100%) and the majority 40 respondents breastfed ≥ 8 times/day (75.5%).

Table 2. Distribution of Respondents Based on Average Breast Milk Production Before and After Giving Oxytocin Massage at the Meisya Medika Clinic in 2023

	N	Min	Max	Mean	Std. Deviation
Breast milk production before oxytocin massage	53	13	74	28.28	12.311
Breast milk production after oxytocin massage	53	435	640	565.70	47.841

Based on table 2, it shows that the average previous breast milk production was 28.28 ml with a standard deviation of 12,311. The lowest breast milk production value was 13 ml and the highest value was 74 ml. Meanwhile, the average breast milk production after giving oxytocin massage was 565.70 ml with a standard deviation of 47,841. The lowest breast milk production value was 435 ml and the highest value was 640 ml.

Table 3. Distribution of Respondents Based on Average Breast Milk Production Before and After Giving Woolwich Massage at the Meisya Medika Clinic in 2023

	N	Min	Max	Mean	Std. Deviation
Production of breast milk before woolwich massage	53	13	74	30.70	13.082
Production of breast milk after woolwich massage	53	420	685	589.57	55.387

Based on table 3, it shows that the average previous breast milk production was 30.70 ml with a standard deviation of 13,082. The lowest breast milk production value was 13 ml and the highest value was 74 ml. Meanwhile, the average posttest breast milk production from the Woolwich massage was 589.57 ml with a standard deviation of 55,387. The lowest breast milk production value was 420 ml and the highest value was 685 ml.

Table 4. Analysis of the Effect of Oxytocin Massage on Breast Milk Production in Postpartum Mothers at the Meisya Medika Clinic in 2023

Variabel	N	Mean Rank	z	P
Breast milk production before oxytocin massage	53	0.000	6.335	0.000
Breast milk production after oxytocin massage	53	27.00		

Based on table 4, it shows the results of the statistical test analysis, the calculated z value is 6.335 and the p value = 0.000 < alpha 0.05, meaning that there is an influence of oxytocin massage on breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023.

Table 5. Analysis of the Effect of Woolwich Massage on Breast Milk Production in Postpartum Mothers at the Meisya Medika Clinic in 2023

Variabel	N	Mean Rank	z	P
Breast milk production before woolwich massage	53	0.000	6.334	0.000
Breast milk production after woolwich massage	53	27.00		

Based on table 5, the results of the statistical test analysis show that the calculated z value is 6,334 and the p value = 0.000 < alpha 0.05, meaning that there is an influence of Woolwich massage on breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023.

Tabel 6. Perbandingan Efektivitas Pijat Oksitosin dengan Pijat Woolwich Terhadap Pengeluaran ASI Pada Ibu Postpartum di Klinik Meisya Medika Tahun 2023

Variabel	N	Mean Rank	Z	P
Kelompok pijat oksitosin	53	46.04	2.50 4	0.012
Kelompok pijat woolwich	53	60.96		

Based on table 6, the statistical test results show that the calculated z value is 42,504 and the p value = 0.012 < alpha 0.05, meaning that there is a comparison of the effectiveness of oxytocin massage with Woolwich massage on breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023. From the results The research obtained that the mean rank value for breast milk production in the group that gave oxytocin massage was greater (46.04) compared to the group that gave Woolwich massage, which was (60.96). So the research results showed that Woolwich massage was more effective than oxytocin massage for increasing breast milk production in postpartum mothers.

Discussion

1. Description of the Average Breast Milk Production in Postpartum Mothers Before and After Giving Oxytocin Massage at the Meisya Medika Clinic in 2023

Based on the research results, the average pretest breast milk production was 28.28 ml with a standard deviation of 12,311. The lowest breast milk production value was 13 ml and the highest value was 74 ml. The results of research (Dewi, Basuki, & Wulandari, 2022) show that the minimum production of breast milk before the oxytocin massage was given was 0 cc, while the maximum production amount was 2 cc with the average breast milk production being 0.3 cc. The results of this research show that the breast milk production that respondents can produce is relatively low. Furthermore, the results of previous research conducted by Anggraeni and Lubis (2021) found that most mothers who were given oxytocin massage were categorized as having smooth breast milk production of 73.3%.

The results of research using interviews with postpartum mothers with low breast milk production stated that breast milk did not come out without pressing and after breastfeeding the breasts felt empty. This can be caused by the influence of the mother's psychological condition and the food she consumes as well as the mother's lack of education to increase breast milk production. Therefore, mothers should not feel excessively stressed and anxious. This situation greatly influences the volume of breast milk in the first week of breastfeeding a baby (Widyawati & Sari, 2022).

Apart from the mother's physical factors, another factor that can influence breast milk production is age. The research results showed that the age of women giving birth at the Meisya Medika Clinic in 2023 in the oxytocin massage group was a majority of 26 - 35 years, 30 people (56.6%) and a minority of 36 - 45 years, 4 people (7.5%). Age less than 20 years is a period of growth, including the reproductive organs (breasts). The younger the mother, the less likely she is to breastfeed because of social demands, the mother's psychology and social pressure which can affect breast milk production. Age 20-35 years is the ideal age for producing optimal breast milk and physical and spiritual maturity in the mother has been formed. Over the age of 35 years, the reproductive organs are already weak and exclusive breastfeeding is not optimal. Basically, as the mother's age increases, the mother's experience can increase, both from herself and others (Siregar, Mardha, & Syafitri, 2023).

According to researchers' assumptions, the average volume of a mother's breast milk is small before oxytocin massage therapy is given, because there are several things that influence it, namely the mother's psychological state, stress and anxiety, this will inhibit the work of the hormones prolactin and oxytocin so that only a little milk comes out, therefore Postpartum mothers who experience irregular breastfeeding must receive intervention so that breast milk can come out smoothly. There are several other factors that make it difficult for breast milk to come out, namely age and family support. Age will affect the work of hormone production or making breast milk, most postpartum mothers are aged 26 - 35 years. At this age, the production of the hormone oxytocin and behavior are working well if the mother receives stimulation such as an oxytocin massage, while family support is also very important, especially the husband, because the mother will feel more comfortable and happy if the husband participates in providing support and motivation.

Based on the results of the researcher's observations, the average breast milk production after the oxytocin massage intervention was carried out for 7 days was 28.28 ml, while the average breast milk volume after the oxytocin massage treatment was 565.70 ml. The difference in the average value after intervention between before and after intervention was 537.42 ml. It can be concluded that there is an effect of oxytocin massage on increasing breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023. The results of research (Dewi, Basuki, & Wulandari, 2022) also show that breast milk production after being given one oxytocin massage action is the least is 0 cc while the maximum production amount is 4.3 cc with the average breast milk production being 1 cc.

2. Description of the Average Breast Milk Production in Postpartum Mothers Before and After Giving Woolwich Massage at the Meisya Medika Clinic in 2023

The results of the study showed that from 53 postpartum mothers who underwent Woolwich massage, the average breast milk production was 30.70 ml. This can be caused by the influence of the mother's psychological condition and the food she consumes as well as the mother's lack of education to increase breast milk production. Therefore, mothers should not feel excessively stressed and anxious. This situation greatly influences the volume of breast milk in the first week of breastfeeding a baby (Widyawati & Sari, 2022).

Not all postpartum mothers immediately produce breast milk because breast milk production is a very complex interaction between mechanical stimulation, nerves and various hormones that influence the release of oxytocin. Apart from being influenced by the baby's sucking, the release of the hormone oxytocin is also influenced by receptors located in the ductal system. If the ductus widens or becomes

soft, oxytocin is reflexively released by the pituitary, which plays a role in squeezing milk from the alveoli.

Salah satu upaya yang dapat dilakukan untuk Stimulating the hormones prolactin and oxytocin in the mother after giving birth is by causing a feeling of relaxation in the mother, namely by massaging with Woolwich which can stimulate the nerve cells in the breast, which is transmitted to the hypothalamus and responded to by the pituitary gland. Before releasing the hormone prolactin, blood will flow to the breast epithelial cells to produce breast milk. To prevent and treat lactation problems, midwives can intervene, in particular the Woolwich massage, which is based on the observation that breast milk flow is more important than mammary gland secretions. Massage is carried out in the lacrimal sinus area, precisely 11.5 cm above the areola, with the aim of removing milk.

Researchers directly taught (practice) Woolwich massage breast care techniques to respondents and carried out evaluations to ensure that the techniques used by respondents were correct and provided education to respondents to do it twice a day in the morning and evening for 3 consecutive days and provided education on breastfeeding techniques. correct. Postpartum mothers' breast milk production after the Woolwich massage experiment was carried out, the assessment results were obtained on the seventh day where the average breast milk production was 589.57 ml.

The lowest breast milk production value was 420 ml and the highest value was 685 ml. Research results from (Trianawati, Tohri, & Mulyani, 2021) also show that of the 15 postpartum mothers in the intervention group after the Woolwich massage, the average breast milk production was 0.68 cc. The results of this study showed an increase in the amount of breast milk production after being given a Woolwich massage. In line with research conducted by Tiarnida (2021), the results showed that all (30) respondents who received Woolwich massage experienced smooth breast milk production and none of the respondents experienced sufficient or insufficient breast milk secretion after being given the Woolwich massage intervention.

3. The Effect of Oxytocin Massage on Breast Milk Production in Postpartum Mothers at the Meisya Medika Clinic in 2023

The results of the statistical test analysis showed that the calculated z value was 6.335 and the p value = $0.000 < \alpha 0.05$, meaning that there was an effect of oxytocin massage on breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023. In line with research (Apreliasari & Risnawati, 2020) Breast milk production before and after oxytocin massage shows that the results of further statistical tests using the Wilcoxon Signed Ranks Test obtained a p value = 0.035 ($p < 0.05$), which means that there is an influence of oxytocin massage on breast milk production. This is in accordance with the theory which explains that oxytocin massage greatly influences breast milk production because the physiological effects of oxytocin massage stimulate the anterior and posterior pituitary to release the hormone oxytocin.

The results of this study are in line with the results of research (Yantigustina, Gandini, & Sutrisno, 2023) which found that breast milk production before oxytocin massage was found to have less than 100% breast milk production. Meanwhile, after giving oxytocin massage, breast milk production was 100%. The Wilcoxon test results p-value = 0.002 (p-value < 0.05) so that H_a is accepted and H_o is rejected, which means there is a significant difference in breast milk production before and after giving oxytocin massage to LBW mothers in the NICU room at Taman Husada Hospital, Bontang.

According to research (Wijayanti & Wahyuni, 2023) also states that there is an influence of oxytocin massage on breast milk production in postpartum mothers with a history of malaria, namely that the average value of pre-test breast milk production is 143.00 ml and the average post-test breast milk production is 249.33 ml and for the effect of oxytocin massage on breast milk production, the p value was 0.000. From these results, it was found that there was a significant increase in breast milk

production after being given massage for 5 days with each massage lasting approximately 5 minutes each day.

Oxytocin massage is carried out by researchers to stimulate the oxytocin reflex or let down reflex through sensory stimulation of the afferent system. Oxytocin massage is done by massaging the back area along both sides of the spine so that it is hoped that with the massage the mother will feel relaxed and fatigue after giving birth will disappear. If the mother feels comfortable, relaxed and not tired, it can help stimulate the release of the hormone oxytocin and breast milk will flow smoothly after delivery. Massage or stimulation of the spine can cause neuro transmitters to trigger the medulla oblongata to send messages to the hypothalamus in the posterior pituitary to release oxytocin. Oxytocin massage stimulates the oxytocin reflex or let down reflex. The benefits obtained are a feeling of relaxation accompanied by reduced postpartum fatigue, which will then cause the hormone oxytocin to be released and breast milk to come out quickly (Dewi, Basuki, & Wulandari, 2022).

According to researchers' assumptions, giving oxytocin massage in the spine starting from the 5-6th nerve to the scapula will speed up the work of the parasympathetic nerves to convey commands to the back of the brain so that oxytocin comes out. Apart from that, it also has other benefits such as calming and reducing stress, generating a sense of trust. themselves, helping postpartum mothers to have good thoughts and feelings about their babies and so on. If the mother applies this oxytocin massage, breastfeeding problems that arise in the first days of birth such as breast milk not flowing smoothly. Because this oxytocin massage can be done immediately after the mother gives birth to her baby for a duration of 2-3 minutes. Oxytocin massage is very effective because it does not require tools and materials that are difficult to obtain. This massage does not have to be done directly by a health worker but can be done by the husband or other family members and can even be applied by the family themselves at home.

4. The Effect of Woolwich Massage on Expenditures in Postpartum Mothers at the Meisya Medika Clinic in 2023

The results of the statistical test analysis obtained a calculated z value of 6.334 and a p value = $0.000 < \alpha 0.05$, meaning that there was an effect of Woolwich massage on breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023. In line with research by (Widadi, Nugraheni, & Marwiati, 2023) by carrying out the Mann Whitney U test on the experimental group and control group, the Asymp value was obtained. Sig. (2-tailed) of 0.013. So it can be concluded that the alternative hypothesis is accepted because there is a significant difference, thus it can be said that there is a significant influence of Woolwich massage on the smooth flow of breast milk in postpartum mothers. (Trianawati, Tohri, & Mulyani, 2021) also stated that there was a difference in the average breast milk production in post partum mothers between the intervention group and the control group, with a Z value of -3.058 with a p value of $0.002 < \alpha (0.05)$.

The results of this study are in line with the results of research conducted by Sukriana (2018), the results of the analysis show that the average volume of breast milk after Woolwich massage treatment in the experimental group was 80.92 ml, while the average volume of breast milk in the control group was 66.82 ml . The difference in the average value after testing between the experimental and control groups was 1.1 ml. Analysis results p-value = 0.000 etlt; (0.05), it can be concluded that there is an influence of Woolwich massage on breast milk production and there is a difference in breast milk production between the intervention and control groups.

Researchers assume that the Woolwich massage technique provides mothers with comfort, reduces swelling, reduces breast milk blockages, stimulates the release of the hormone oxytocin, maintains breast milk production when the mother and baby are sick. Apart from being safe and easy to do, Woolwich massage is also better than other breast milk massage techniques. This is because Woolwich massage is an alternative to increase the comfort and relaxation of postpartum mothers

during the breastfeeding period, so that it can increase breast milk volume. The Woolwich massage method also provides reflex stimulation of breast milk formation and milk production.

5. Effectiveness of Oxytocin Massage with Woolwich Massage on Breast Milk Expression in Postpartum Mothers at the Meisya Medika Clinic in 2023

In this study, the statistical test results showed that the calculated z value was 42,504 and the p value = $0.012 < \alpha 0.05$, meaning that there was a comparison of the effectiveness of oxytocin massage with Woolwich massage on breast milk production in postpartum mothers at the Meisya Medika clinic in 2023. From the research results The mean rank value of breast milk production in the group giving oxytocin massage was 46.04 and the mean rank value of breast milk production in the group giving Woolwich massage was 60.96. So the research results showed that Woolwich massage was more effective than oxytocin massage in increasing breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023.

These results are in line with research (Handayani, Susaldi, & Syarah, 2023) from the results of the Mann U Whitney test, the p-value in the study was found to be $0.022 < 0.05$, so it can be concluded that the hypothesis is accepted, thus that oxytocin massage and Woolwich massage are effective in increases breast milk production in breastfeeding mothers. Supported by research (Aryani, Hasan, & Atikasari, 2019) that the results of measuring breast milk on the fourth day were obtained with a p-value of 0.001, meaning that there was a difference in the smoothness of breast milk between postpartum mothers who were given Woolwich massage intervention and oxytocin massage. It can be assumed that postpartum mothers who were given Woolwich massage intervention and oxytocin massage had differences in the flow of breast milk.

These results are also in line with research conducted by (Ma'rifah & Herawati, 2022) that from the results presented, a value of $p = 0.015$ ($p < 0.05$) was obtained. This means that there is a difference in the flow of breast milk between postpartum mothers who were given Woolwich massage intervention and oxytocin massage. It can be assumed that postpartum mothers who were given Woolwich massage intervention and oxytocin massage had differences in the flow of breast milk. After all, it is known that both have the effect of increasing breast milk production. The Woolwich massage group and the oxytocin massage group showed that an increase in breast milk production was shown in oxytocin massage therapy, the value in the oxytocin massage group was greater than in the Woolwich massage group.

Research (Sulaeman et al., 2019) shows that breast milk production can be accelerated through massage or stimulation of the spine. By massaging the spinal area, it will also relax tension and relieve stress, so that the hormone oxytocin comes out and will help release breast milk, assisted by the baby sucking on the nipple immediately after the baby is born, breast milk dripping or coming out is a sign of the active oxytocin reflex. Reducing discomfort in breastfeeding mothers will help the smooth flow of breast milk.

Researchers concluded that oxytocin massage and Woolwich massage both have the function of increasing breast milk production in postpartum mothers. However, from the results of massage research, Woolwich massage is more effective than oxytocin massage in increasing breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023. The increase in breast milk production is caused by the process of forming breast milk which occurs after touch or stimulation during the massage.

This stimulation stimulates the production of oxytocin which causes contraction of the myoepithelial cells, this process is known as the "prolactin reflex" which makes breast milk available to the baby. Sucking or stimulation of the breast can trigger the release of breast milk from the mammary alveolus through the duct to the lactiferous sinus. Next, it will stimulate the production of oxytocin by the posterior pituitary gland, then oxytocin enters the blood and causes contraction of the myoepithelial

cells that surround the mammary alveoli and lactiferous ducts. Contractions in these special cells then push the milk out of the alveoli through the lactiferous ducts to the lactiferous sinuses where the milk will be stored. So that when there is suction on the breast, the milk in the sinuses is forced out (Sinaga & Br Sembiring, 2022).

Conclusion

1. The average value of breast milk production before giving oxytocin massage was 28.28 ml with the lowest value of breast milk production being 13 ml and the highest value being 74 ml. Meanwhile, the average breast milk production after giving oxytocin massage was 565.70 ml with the lowest breast milk production value being 435 ml and the highest value being 640 ml. And the average value of breast milk production before the Woolwich massage was 30.70 ml with the lowest value of breast milk production being 13 ml and the highest value being 74 ml. Meanwhile, the average breast milk production after giving the Woolwich massage was 589.57 ml with the lowest breast milk production value being 420 ml and the highest value being 685 ml.
2. The results of the research showed that the mean rank value of breast milk production before giving oxytocin massage was 0.000 and the mean rank value of breast milk production after giving oxytocin massage was 27.00. The results of statistical test analysis obtained a calculated z value of 6.335 and a p value = 0.000 and the mean rank value of breast milk production before giving the Woolwich massage was 0.000 and the mean rank value of breast milk production after giving the Woolwich massage was 27.00. The results of the statistical test analysis obtained a calculated z value of 6,334 and a p value = 0.000. This means that the p value is < alpha 0.05, which shows that oxytocin massage and Woolwich massage influence each other on breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023.
3. The results of the research obtained that the mean rank value of breast milk production in the group giving oxytocin massage was 46.04 and the mean rank value of breast milk production in the group giving Woolwich massage was 60.96 and the results of statistical tests obtained a calculated z value of 42.504 and p value = 0.012 < alpha 0, 05 means there is a comparison of the effectiveness of oxytocin massage with Woolwich massage on breast milk production in postpartum mothers at the Meisya Medika Clinic in 2023

Suggestion

1. For Respondents

It is recommended to use oxytocin massage or Woolwich massage which can increase breast milk production. And mothers should regularly consume vegetables such as katuk leaves, chayote, long beans, soy milk and fruits that contain lots of water, such as melon, watermelon, pear, and many other juicy fruits that can stimulate and increase secretion and quantity. production of breast milk (ASI).

2. For the Midwifery Profession

Health workers, especially midwives, should provide information to pregnant women about the benefits of oxytocin massage or Woolwich massage and advise postpartum mothers to use oxytocin massage or Woolwich massage, do breast care exercises as an alternative therapy to increase breast milk production when breastfeeding.

3. For Further Researchers

It is hoped that researchers will develop different variables such as giving papaya fruit, soy milk, katuk leaves, or green bean juice which can increase breast milk production.

4. Divide the research location

Providing information through counseling and education to pregnant women in the final trimester during visits and postpartum mothers at health facilities about the benefits of oxytocin

massage or Woolwich massage to increase breast milk production and flow so that later mothers can breastfeed exclusively.

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