

# Application Of Woolwich Massage To Increasing Breast Milk Production In Post Partum Mothers At Pmb Cahyati, S.Tr. Long Parung Keb Year 2023

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## Abstract.

*Background: Coverage Of Infants Who Received Exclusive Breastfeeding In Bogor City In 2018 Was 45.42% Then In 2019 It Increased By 53.12%, In 2020 It Decreased By 51.06% And In 2021 It Decreased Again, Namely 48.58% Of 1860 Babies Examined. The Decrease In Exclusive Breastfeeding In Infants In 2021 Shows That There Is A Lack Of Concern And Awareness Of Mothers And Families About The Importance Of Breast Milk. Efforts That Can Be Made To Increase Breast Milk Production By Doing Massages Such As Woolwich Massage. Research Objective To Find Out Whether Woolwich Massage Can Increase Breast Milk Production In Postpartum Mothers. Research Method: This Study Used A Pre-Experimental Design Research Method With A Pre-Test And Post-Test One Group Research Design. The Research Sample Of 18 Respondents Was Taken With Total Sampling Technique. Research Results: Based On The Results Of Statistical Tests Using The Sample Paired T-Test, The P-Value = 0.001 < 0.05 Was Obtained. This Means That There Is An Effect Of Woolwich Massage On Increasing Breast Milk Production Of Postpartum Mothers At Pmb Cahyati, S.Tr. Keb Parung Panjang Bogor In 2023. Suggestion: It Is Expected That Mothers Start Doing Breast Care Since Pregnancy By Applying Woolwich Massage And Immediately After Birth To Immediately Do Imd As One Way To Increase Breast Milk Production So That Mothers Can..*

**Keywords:** Postpartum, Woolwich Massage And Breast Milk Production.

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## I. INTRODUCTION

Breast milk is a type of food that fulfills all elements of a baby's needs in physical, social psychological and spiritual aspects. Breast milk contains colostrum with protein content in it which functions as the body's immune system. (Hubertin, in Naziroh, 2017). Exclusive breastfeeding is giving without additional food to babies aged 0-6 months. Babies who are not exclusively breastfed until the age of 6 months will be at risk of experiencing acute diarrhea and have a greater risk of death (Amnar et al., 2022). Based on data from the West Java Central Statistics Agency, the coverage of babies receiving exclusive breastfeeding in the city of Bogor in 2018 was 45.42%, then in 2019 it increased by 53.12%, in 2020 it decreased by 51.06% and in In 2021, there was another decline, namely 48.58% of the 1860 babies examined. The decline in exclusive breastfeeding for babies in 2021 shows that there is an increasing lack of concern and awareness among mothers and families about the importance of breastfeeding. (Bogor City Health Service Profile, 2021). Exclusive breastfeeding programs are quite difficult to develop because they are related to various social problems in society (Nurlia et al., n.d.). One of the causes of low coverage of exclusive breast milk during the first 6 months of a baby's life is that mothers lack confidence that their breast milk can cover their nutritional needs.

The problem that is often faced by postpartum mothers is that little milk comes out and even breast milk does not come out, causing failure in providing exclusive breastfeeding and mothers having to give formula milk to their babies (Sukriana et al., 2018). The causes of the breast milk production process not running smoothly can also be influenced by several factors including nutritional factors, breast care, baby sucking factors, socio-cultural factors, breastfeeding factors and psychological factors. (Sri, 2018). Efforts that can be made to increase the production or amount of breast milk are Woolwich massage. Woolwich massage is a stimulation given to the mother that can cause a feeling of relaxation and comfort so that it can increase the hormones Prolactin and oxytocin and the release of oxytocin by the pituitary which plays a role in squeezing milk out of the alveoli (Wahyuni et al., 2021). The advantage of Woolwich massage is that it is a technique with fairly simple massage steps that can be done by the mother herself with equipment that is

easy to obtain and does not require a long time, making it easier for mothers to do Woolwich massage (Nurvitasari, 2018). Woolwich massage is a massage performed on the lactiferous sinus area, precisely 1-1.5 cm above the mammary areola for 15 minutes, with the aim of removing breast milk from the lactiferous sinus.

This massage will stimulate the cells in the breast, this stimulation is transmitted to the hypothalamus and responded to by the anterior pituitary to release the hormone prolactin which will be transferred by the blood to the breast myopitel cells to produce breast milk (Ohorella et al., 2019). Woolwich massage has several benefits, including increasing the prolactin and oxytocin reflex (let down reflex), preventing blockages, increasing breast milk production and preventing inflammation or breast dams. With the Woolwich massage method, it is possible to increase breast milk production and expenditure, which is characterized by an increase in breast milk volume (Kusumastuti et al., 2019). Based on a preliminary study at PMB Cahyati, Bogor Regency in April 2023 through interviews with 10 breastfeeding mothers with babies aged 0 to 6 weeks, it was found that 6 mothers (60%) said they had given formula milk when their babies were 2 to 6 weeks old because the mothers felt breast milk a little comes out so it feels like it's not enough for the baby. Meanwhile, 4 mothers (40%) said they continued to give breast milk without additional formula milk. Therefore, it is necessary to increase breast milk production in postpartum mothers, so that mothers can provide exclusive breastfeeding

## II. METHODS

This type of research is quantitative research using a pre-experimental, pre-test and post-test one group design. The population in this study were all postpartum mothers who were at PMB PMB Cahyati, S.Tr. Keb 2023 in January-September 2023 numbered 18 people. The sample taken as a whole met the sample criteria, namely 18 people using total sampling. The data collected in this research is in the form of secondary data and primary data. Data analysis uses univariate and bivariate analysis.

## III. RESULTS AND DISCUSSION

### 1. Univariate Analysis

#### a. Postpartum Mother's Breast Milk Production Before Massage Intervention is Given

**Table 1.** Frequency Distribution of Breast Milk Production Before Woolwich Massage Intervention for Postpartum Mothers at PMB Cahyati, S.Tr.Keb Parung Panjang Bogor.

Breast milk production	Frequency ( <i>f</i> )	Percentage
little	18	100%
Enough	0	0
<b>Total</b>	<b>18</b>	<b>100%</b>

Based on table 1. It is known that breast milk production before the Woolwich Massage intervention was given to postpartum mothers, all 18 respondents (100%) had little breast milk production. In this study, the results obtained before the Woolwich massage intervention was given to postpartum mothers were all 18 respondents with a small amount of breast milk production of 100%.

#### b. Postpartum Mother's Breast Milk Production Before Massage Intervention is Given

**Table 2.** Frequency Distribution of Breast Milk Production After Woolwich Massage Intervention for Postpartum Mothers at PMB Cahyati, S.Tr.Keb Parung Panjang Bogor in 2023.

Breast milk production	Frequency ( <i>f</i> )	Percentage
Little	0	0
Enough	18	100%
<b>Total</b>	<b>18</b>	<b>100%</b>

Based on table 2, it is known that breast milk production after the Woolwich Massage intervention for postpartum mothers was 18 people (100%) with sufficient breast milk production.

### 2. Bivariate Analysis

Bivariate analysis was carried out to determine the effect of Woolwich Massage on increasing breast milk production for post-partum mothers at PMB Cahyati, S.Tr. Bogor Parung Panjang District in 2023 can be seen in tables 3 and 4 as follows:

**Table 3.** Results of the Normality Test for Breast Milk Production in Postpartum Mothers at PMB Cahyati, S.Tr. Bogor Parung Panjang District in 2023.

Pijat Woolwich	Shapiro-Wilk		
	Statistic	Df	Sig
Pretest	.926	18	.163
Posttest	.955	18	.502

Based on table 3, the results of the Shapiro Wilk test before the Woolwich Massage intervention were carried out showed a sig value or P value of 0.163. Meanwhile after The Woolwich Massage intervention was carried out and obtained a sig value or P value of 0.502. This shows that the data is normally distributed.

**Table 4.** Application of Woolwich Massage to Increase Breast Milk Production in Postpartum Mothers Before Intervention and After Intervention.

Woolwich Massage	Pretest		Posttest		Median (Min-Max)	P value
	Frequency (f)	Percentage	Frequency (f)	Percentage		
Little	18	100%	0	0	70 (60-75)	<.001
Enough	0	0	18	100%	98 (85-120)	

Based on table 5.4, it is known that breast milk production before the Woolwich Massage intervention was given to postpartum mothers, all 18 respondents (100%) had little breast milk production. Meanwhile, breast milk production after the Woolwich Massage intervention for postpartum mothers was all 18 respondents (100%) with sufficient breast milk production. Based on statistical tests, a significance result of p value = 0.001 is obtained, which is smaller than the 5% significance level,  $\alpha = 0.05$  (p-value = 0.001 < 0.05), so the conclusion is that  $H_a$  is accepted, which means that there is an influence of Woolwich massage on increasing breast milk production in post partum mother at PMB Cahyati, S.Tr. Bogor Parung Panjang District in 2023.

## Discussion

### 1. Postpartum Mother's Breast Milk Production Before being given the Woolwich Massage Intervention

In this study, the results obtained before the Woolwich massage intervention was given to postpartum mothers were all 18 respondents with a small amount of breast milk production of 100%. These results indicate that breast milk production in postpartum mothers in the deficient category is still very high. This happened because the small amount of breast milk production, namely <76 ml, was included in the research inclusion criteria, so that all postpartum mothers before being given intervention were included in the deficient category. The small amount of breast milk production is caused by several factors, namely physical factors, baby sucking factors, psychological factors, nutritional factors, and breast care factors. From the results of interviews conducted by researchers, it is clear that from physical factors there are mothers who experience sinking nipples, from factors such as baby sucking and the frequency of breastfeeding, many mothers are still confused about how to breastfeed and many still give breast milk every 3-4 hours. Meanwhile, from the psychological factor of the mother, some mothers feel that the amount of breast milk they produce is small, which causes anxiety which inhibits the release of breast milk. In terms of nutritional factors, some mothers do not like to eat green vegetables and fruit, because the food consumed by breastfeeding mothers greatly influences breast milk production.

If the mother's nutrition is sufficient and her diet is regular, breast milk production will run smoothly. And in terms of breast care, almost all mothers only care for their breasts when bathing. According to Pollard in Amnar (2022), each breast produces a different amount of breast milk. Babies can only empty one or two breasts/day and the average amount of breast milk given to babies on days 2 to 6 during breastfeeding is 395-868 ml/day with a frequency of 5-10 feedings with an average volume of 76 ml every time you breastfeed or around 67% of the milk available for consumption. Breast care is highly recommended for postpartum mothers, especially mothers who have problems breastfeeding or producing breast milk. This irregular flow of breast milk can be stimulated with Woolwich massage (Nurvitasari, 2019). Meanwhile, Badrus (2018) also

stated that efforts can be made to stimulate the hormones prolactin and oxytocin in postpartum mothers by providing a relaxing sensation to the mother, namely by doing a Woolwich massage.

## **2. Average Breast Milk Expenditure of Postpartum Mothers Before Giving Rolling Massage at PMB Ruri Cisauk in 2023**

In this study, the results obtained after being given the Woolwich massage intervention to postpartum mothers on days 2 to 3 were that 18 respondents had sufficient breast milk production of 100%. This shows that there is an increase in maternal breast milk production by providing a better Woolwich Massage intervention. Respondents who produced a lot of breast milk said that after being given the Woolwich Massage, the milk production increased to the point that it leaked and the breasts felt tense when they were about to breastfeed their babies. This is supported by maternal nutritional factors, maternal attitudes or behavior related to nutritional patterns that can increase breast milk production. Husband's support is related to the mother's psychology so it has a big influence on the smooth production of the mother's breast milk. This is in line with Utami's research in Malatuzzulfa, et al (2022) that psychological and emotional factors can influence breast milk production because the secretory activity of the mammary glands always changes due to the psychological or psychological influences experienced by the mother. Maternal feelings can inhibit/increase oxytocin release. The hormones prolactin and oxytocin play a role in increasing breast milk production.

Knowledge of breast care is very important for pregnant and postpartum mothers, especially those who have problems breastfeeding or breast milk production, so that mothers can increase breast milk production so that mothers can provide exclusive breast milk to their babies. One effort to increase breast milk production in postpartum mothers is with Woolwich Massage. Woolwich massage is a massage performed on the lactiferous sinus area, precisely 1-1.5 cm above the mammary areola for 15 minutes, with the aim of removing breast milk from the lactiferous sinus. This massage will stimulate the cells in the breast, this stimulation is transmitted to the hypothalamus and responded to by the anterior pituitary to release the hormone prolactin which will be transferred by the blood to the breast myoepithelial cells to produce breast milk (Ohorella et al., 2019) Woolwich massage has several benefits, including increasing the prolactin and oxytocin reflex (let down reflex), preventing blockages, increasing breast milk production and preventing inflammation or breast dams. With the Woolwich massage method, it is possible to increase breast milk production and expenditure, which is characterized by an increase in breast milk volume (Sukriana et al., 2018). Woolwich massage is a breast massage technique for postpartum mothers to increase the prolactin reflex and oxytocin reflex (let down reflex) (Nurvitasari, 2018). Another advantage of Woolwich massage is that the technique uses fairly simple massage steps that can be done yourself with equipment that is easy to obtain and does not require a long time, making it easier for mothers to do Woolwich massage (Nurvitasari, 2018).

## **3. Effect of Woolwich Massage on breast milk production in postpartum mothers before and after intervention**

Based on the research results, they were analyzed using statistical tests using the paired t test. There were 18 respondents who carried out a pre-test on all respondents on the first day, then intervention was given for 3 consecutive days which was carried out in each respondent's house, the post-test was carried out on the 3rd day after the pre-test activities and obtained the following results. The statistical test data obtained a significance result of  $p \text{ value} = 0.001$ , which is smaller than the 5% significance level,  $\alpha = 0.05$  ( $p\text{-value} = 0.001 < 0.05$ ), so the conclusion is that  $H_a$  is accepted, which means that there is an influence of Woolwich massage on increasing breast milk production in post partum mother at PMB Cahyati, S.Tr. Bogor Parung Panjang District in 2023. The results of this research are also in line with Wahyuni's research in 2021 with the title "The Effect of Woolwich Massage on Breast Milk Production in Postpartum Mothers at the Sri Wahyuni Clinic." after a Woolwich massage on a post partum mother. (Wahyuni et al, 2021) This research carried out a pre-test on all respondents on the first day, it was found that 18 people were in the low breast milk category and all respondents met the research inclusion criteria. pretest by observing the Woolwich massage intervention and measuring the breast milk that comes out in a measuring cup. On day 2, observations were

carried out via WhatsApp, interventions and measurements of breast milk were carried out by the respondents themselves at home.

On the 3rd day, a posttest was carried out, namely all 18 respondents experienced an increase. This is influenced by several factors, namely physical factors, baby suction factors, psychological factors, nutritional factors, and breast care factors. According to researchers' observations, Woolwich massage given to postpartum mothers is a very significant factor in increasing breast milk production. Therefore, when the Woolwich massage intervention is carried out routinely by postpartum mothers, mothers do not need to worry about the release of breast milk and the adequate nutrition received by the baby, because the breast milk produced will increase. Woolwich massage is also a massage that can stimulate nerve cells in the breast, which will then be transmitted to the anterior pituitary to release the hormone prolactin which will be transferred to the blood to the myoepithelial cells of the breast to produce breast milk. The benefits of Woolwich massage include increasing breast milk production, increasing breast milk secretion, and preventing breast dams and mastitis (Nurvitasari, 2018). Woolwich massage can be done by mothers themselves with equipment that is easy to obtain and does not require a long time, making it easier for mothers to do Woolwich massages. Based on research that has been carried out and several studies that have been analyzed, the researchers stated that the effect of Woolwich massage on breast milk production is very effective in increasing breast milk volume because it can stimulate myoepithelial cells in the breast glands which increase levels of the hormone prolactin and the hormone oxytocin so that the need for breast milk increases. baby can be fulfilled.

#### IV. CONCLUSION

1. Postpartum mothers' breast milk output before the Woolwich Massage intervention was carried out was in the small breast milk category at 100%.
2. Postpartum mother's breast milk output after the Woolwich Massage intervention was in the adequate breast milk category at 100%.
3. Based on the results of statistical tests using the Sample Paired T-test,  $p\text{-value} = 0.001 < 0.05$ . This means that there is an effect of Woolwich Massage on increasing breast milk production for post-partum mothers at PMB Cahyati, S.Tr. Bogor Parung Panjang District in 2023.

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