

THE EFFECT OF WOOLWICH MASSAGE TO POSTPARTUM MOTHER'S MILK PRODUCTION AND INFANT WEIGHT

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Abstract

The less coverage of exclusive breastfeeding was caused by insufficient milk production in the first week of birth, so newborns are given formula milk to meet their needs. Woolwich massage became one of the factors can increase milk production. The objective of this study was to examine the effect of Woolwich massage on postpartum mother's milk production and infant weight gain. This study used a quasi experimental pre post design with a control group. The sample were 36 postpartum mothers, 18 in the intervention group and 18 in the control group. The analysis was carried out to test the differences between the pre and post intervention groups and the control group using a statistical t test. The results showed there was an effect of Woolwich massage on milk production through monitoring the infant's weight, p value 0.01. Woolwich massage for postpartum mothers can increase and facilitate milk production which affects the infant's satisfaction when getting breast milk and has an impact on increasing the infant's weight at the beginning of birth up to seven days. The recommendation given was woolwich massage intervention could be given to postpartum mothers from the beginning of birth to accelerate the smooth process of breastfeeding and increase the infant's weight. Then, Woolwich massage is given two times a day and is carried out for 15 minutes and it is not suggested to postpartum mothers who have pathological disorders of the breast.

Keywords: *Woolwich massage, postpartum, milk production, baby weight*

INTRODUCTION

Woolwich massage is one of the factors that can cause breast milk production to increase, meaning that breastfeeding mothers have a significant effect with the woolwich massage intervention carried out (E. T. Wahyuni & Noviyanti, 2019). Increased milk production can meet the nutritional adequacy of infants so that babies do not need to add formula milk or milk other than breast milk. Sufficient milk production can provide adequate nutrition for babies for 6 months so that mothers can provide exclusive breastfeeding in full. Breastfeeding can increase the bond between mother and baby. The baby will feel the warmth and affection of his mother, the baby will be calmer, and sleep better so that the baby will grow and develop optimally, in addition to providing simultaneous stimulation to the baby (Siregar, 2020).

Nationally the coverage of babies receiving exclusive breastfeeding in 2019 is 67.74% (Indonesian Health Profile, 2019). This figure has exceeded the 2019 Strategic Plan target of 50%. However, it is still found in several provinces where the achievement target is below 50%. This figure needs to be maintained considering that it is still found at 0 months of birth that babies are given formula milk because they feel that their milk production is not much and smooth (Ministry of Health, 2020). The exclusive breastfeeding coverage rate in 2018 in Lubuk Linggau City, South Sumatra is 54.85%, this figure is still below the Lubuk Linggau City government target of 80% (Lubuk Linggau City Health Office, 2018).

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METHOD

Research Design and Subject

The design of this study was a quasi-experimental pre and post design with a control group. The study was conducted at the Ummi midwife clinic in Lubuk Linggau for the intervention group and at Ermawati Lubuk Linggau clinical practice for the control group. The duration of this study was 3 months. The sample of this research is mothers who have just given birth normally who want to breastfeed their babies, exclusively from the early stages of birth, do not have ca mammae disease. The intervention given to the intervention

group was woolwich massage for 15 minutes which was given 2 times a day in the morning and evening for 7 consecutive days. The control group was given education only at the beginning of birth without being given direct intervention by Woolwich massage. Breast milk production was observed by measuring the baby's weight every day. This research has conducted an ethical feasibility test No KEPK. M/137/04 12020.

Instruments and Data Analysis Procedures

The instruments of this study were direct observation by measuring the baby's weight every day for 7 days. The data were analyzed using the mean, standard deviation, and mean difference for the descriptive picture and to determine the difference and influence using the dependent T test analysis.

RESULT

The results of the analysis of the characteristics of the respondents in the intervention group included 18 respondents, 88.9% aged 20-35 years, 38.9 had college education, 83.3% were primiparous, and 61.1% did not work outside the home. The characteristics in the control group were 94.4% aged 20-35 years, 11.1% had tertiary education, 88.9% were primiparous and 72.2% did not work outside the home. The results of the analysis of the characteristics of respondents in infants 0-7 days in the intervention group were 65% female and 54% male in the control group.

The adequacy of breast milk production in the mother can be observed through the baby's weight gain and the baby's daily habits based on the habits of urination, defecation and the frequency of breastfeeding in the intervention group and control group can be seen in table 1 as follows.

Table 1 Baby's Weight for 7 days and Habit Patterns Based on Habits of Urination, Defecation, and Frequency of Breastfeeding in the Intervention Group and Control Group N=18 per group

Variabel	Men of Group intervention	Mean of Group Control
Baby's Weight		
Fisrt day	3063 gram	2888 gram
Seventh day	3233 gram	2819 gram
Buang Air Kecil		
Fisrt day	➤ 6 times	< 6 times
Seventh day	➤ 6 times	➤ 6 times
Buang Air Besar		
Fisrt day	2.16 (2-4 times)	2.16 (2-3 times)
Seventh day	2.94 (2-4 times)	2.84 (2-4 times)
Frekuensi Menyusui		
Fisrt day	4.77(4-7 times)	4.77(4-7 times)
Seventh day	9.38 (8-12 times)	9.05 (8-10 times)

Table 1 showed there was an increase in infant weight in the intervention group on day 1, a mean of 3,063 and a mean of 3,233 on day 7. Meanwhile, the habit of urinating in the control group on day 1 was less than 6 times, and on day 7 more than 6 times. And bowel habits in the intervention group from day 1 to day 7 2-4 times. And the frequency of breastfeeding babies both in the intervention group and in the control group increased.

Table 2 Differences in Pre and Post Based on Weight Gain in the Intervention Group and the Control Group N=18 per group

Variabel	Intervension group		Control group	
	pre	post	pre	post
Baby's Weight				
Mean	3.083	3.233	2.888	2.819
SD	3.929	3.772	2.323	2.600
Gain mean	150		69	
P value	0.000		0.001	

Table 2 showed there are differences in the weight of pre and post babies in the intervention group and the control group with the difference in the mean of the intervention group being 150 and the difference in the mean of the control group being 69.

Table 3 Effect of Woolwich Massage on Infant Weight Gain in the Intervention Group and the Control Group N=18 per group

Variable	Mean	SD	Gain mean	P value
Pre				
Baby's Weight				
Intervention	3.083	3.929	195	0.80
Control	2.888	2.323		
Post				
Baby's Weight				
Intervention	3.233	3.772	4.14	0.01
Control	2.819	2.600		

Table 3 showed that there is no effect of early birth weight or day 1 between the intervention group and the control group p value 0.80, but on day 7 it shows the effect of Woolwich massage on breast milk production which can be observed through the addition of baby weight where the difference mean infant weight gain 4.14 p value 0.01.

DISCUSSION

Adequacy of breast milk production in postpartum mothers who provide exclusive breastfeeding to babies at the beginning of birth is monitored by measuring the baby's weight. Another monitoring is the pattern of the baby's daily habits based on the pattern of urination habits, bowel habits and breastfeeding frequency. The results of this study illustrate that there is weight gain in the first 7 days of birth in infants who are breastfed by postpartum mothers who carry out Woolwich massage 2 times a day, carried out for 15 minutes. Massaging the lactiferous sinus area above the mammary areola will stimulate the breast nerve cells which are then forwarded to the hypothalamus and posterior pituitary to secrete the hormone prolactin. So, breast milk production is smooth.

The results of this study showed that the mean weight gain of infants for 7 days in the intervention group indicated that Woolwich massage had an effect on breast milk production. When viewed from the monitoring of patterns of habitual urination, the frequency of urination is more than 6 times, bowel movements 2-4 times, and the frequency of breastfeeding is more frequent (10-12 times), this provides an indicator of a baby's adequacy. However, judging from the results of monitoring the frequency of breastfeeding in the control group only (8-10 times). This study is in line with other researcher concluded that there is a relationship between the frequency of breastfeeding and an increase in infant weight (Erlinawati, 2019).

Table 2 showed that there is a difference in the mean baby weight between the intervention group and the control group. However, there was a slight difference in the control group in terms of the tendency to experience weight loss in infants. At the beginning of birth the first 10 days of the baby physiologically the baby will experience weight loss. However, if you look at the results of monitoring in the intervention group until day 7, there is an increase in body weight. While in table 3 shows that there is no effect of weight before the intervention, both in the intervention group and the control group. However, after 7 days after being given the Woolwich intervention, there was an effect of Woolwich massage in both the intervention and the control group, where the intervention group had a large difference in mean compared to the control group who was only given education at the beginning without further Woolwich massage intervention.

The increase in the baby's weight after being given the Woolwich intervention is the impact of the increased milk production, the baby is very satisfied when sucking the areola of the mother, milk has come out smoothly. It was also stated based on other researchers that there was an effect of the Woolwich massage effect given to postpartum mothers to be a very

significant factor in increasing breast milk expenditure. When the woolwich intervention is carried out routinely by postpartum mothers, mothers not need to worry about the release of breast milk and the adequacy of the nutrients received by baby, because the milk produced will automatically be abundant (Wahyuni & Noviyanti, 2019). Other researchers also said massage from Woolwich as an alternative therapy to increase milk production. Post partum mothers can apply Woolwich massage to increase milk production so it can meet the nutritional needs of babies (Wahyuni et al., 2021).

CONCLUSIONS AND SUGGESTIONS

The conclusion of this research that there was an effect of Woolwich massage on milk production through monitoring the infant's weight. Woolwich massage for postpartum mothers can increase milk production which affects the infant's satisfaction when getting breast milk and has an impact on increasing the infant's weight at the beginning of birth up to seven days. The recommendation was given that woolwich massage could be given to postpartum mothers from the beginning of birth to accelerate the smooth process of breastfeeding and increase the infant's weight. Then, it is given two times a day and carried out for 15 minutes, but it is not suggested to postpartum mothers who have pathological disorders of the breast.

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