



## The Effectiveness of Massage Rolling (back) on Increasing Breast Production in Postpartum Mothers

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**Abstract** - This research is motivated by the lack of milk production and the production is slow, so that the mother cannot give enough milk to her baby. The cause of insufficient and slow breastfeeding is due to the presence of the hormone prolactin and the lactation process also depends on oxytocin. Massage rolling (back) is a relaxation therapy that aims to stimulate the central nervous system so that it can increase milk production, especially for post-partum mothers and can provide comfort and relaxation to the mother after childbirth. The rolling massage action (back) can affect the hormone prolactin, which acts as a stimulus for milk production in the mother during breastfeeding. There is also the aim of the results of this study that therapy or rolling massage (back) massage in post partum mothers can increase milk production. This research uses a quantitative approach, the method used in this research is quasi experimental. The type of design in this study was in the form of a non equivalent design (pretest and posttest). The sampling technique used was accidental sampling. The population in this study were post partum mothers at the Pratama Deliana Clinic Pekanbaru who experienced unsanitary breastfeeding. The results showed that the rolling massage method (back) was effective for increasing milk production in postpartum mothers with a p-value of 0.001 (<0.05). It is hoped that the need for socialization about rolling massage to mothers since pregnancy, both in the class of pregnant women or during pregnancy visit counseling. Socialization can also be in the form of leaflets or banners about rolling massage.

**Keywords** : Massage Rolling (back), Mother Postpartum.

### 1. Introduction

Breast milk (ASI) will be produced by every mother after giving birth. Breast milk is used as natural nutrition for babies. Babies grow and develop optimally when breastfeeding is given properly and correctly for six months as one of the single foods to meet the baby's nutritional needs (Roesli, 2005).

WHO recommends that every newborn get exclusive breastfeeding for 6 months. Exclusive breastfeeding for 6 months has been scientifically proven to meet the baby's nutritional needs. However, exclusive breastfeeding is a program that is quite difficult to develop because it is related to various social problems in the community. Until 2008, the exclusive breastfeeding coverage only reached 39.9%, decreased in 2009, namely 34.56% and increased to 40.03% in 2010. Meanwhile, in 2011, the exclusive breastfeeding coverage showed an increase again to 49.5%. (DIY Health Office, 2012).

One of the causes of the unsuccessfulness of exclusive breastfeeding is the mother's lack of confidence that her breast milk can meet the nutritional needs of her baby (Roesli, 2008). This occurs because breast milk does not come out or only comes out a little in the first days after delivery. In conditions that are full of worry and insecure because they feel that they are not getting enough milk, mothers need help and support to be able to maintain milk production. With a sense of insecurity and worry will cause inhibition of production of the hormone oxytocin.

Breast milk is produced late due to the influence of the hormone prolactin and the hormone oxytocin. The hormone prolactin and the hormone oxytocin affect and secrete breast milk. The process of expressing breast milk occurs when the hormone oxytocin is released from the posterior pituitary gland in response to the baby's suction. Then stimulates the epithelial cells in the alveoli to contract and excrete milk through the lactiferous sinus tracts and stimulate prolactin (Reeder, Martin, & Griffin, 2012).



Pamuji (2014) states that one of the efforts that can be made to stimulate the hormone prolactin and the hormone oxytocin in mothers after giving birth is to provide rolling massage (back) which can affect the hormone prolactin which functions as a stimulus for milk production in mothers during breastfeeding. This action can relax the mother and smooth the flow of nerves and milk ducts in both breasts (Amin, 2011).

Rolling massage namely massage of the spine (ribs 5-6 to scapula with a circular motion) which is usually done to mothers after childbirth which can help the work of the hormone oxytocin in expressing breast milk. Massage Rolling Technique (Back) is an action that provides a relaxing sensation to the mother and smoothes the flow of nerves and milk ducts for both breasts and relaxes the mother because it stimulates the release of endorphin hormones and can stimulate oxytocin. (Perinasia, 2010).

The results of research conducted by (Fithrah Nurhanifah, 2013) on the effectiveness of rolling back massage show that there is an increase in milk production. Massage is an effective supportive therapy to reduce physical discomfort and improve mood. The reduction of discomfort in nursing mothers will help smooth the reduction of breast milk. Back rolling massage has a relaxing effect on the mother, indirectly stimulating the hormone oxytocin which can help the process of expressing breast milk (Roesli, 2008).

The results of this study are also in line with the results of Heny's (2017) research on the effect of back rolling massage on increased breast production in postpartum mothers. This study used data analysis with repeated anova test. Based on the results of the study, the frequency of infant BAK in the control group had a mean of 5.8 and the treatment group was 7.3. This is reinforced by value  $p = 0.001$  ( $p < 0.05$ ) which means that there is an effect of rolling back massage on increasing breast milk production in postpartum mothers

## 2. Method

In this service activity, this research method uses a quantitative approach, the method used in this research is a quasi experiment. Quasi experimental research is research that is intended to determine whether or not there are consequences of "a" imposed on the subject investigating (Notoadmodjo, 2005). The type of design in this study was in the form of a non equivalent design (pretest and posttest). The research was carried out at the Deliana Pratama Clinic, Pekanbaru City and will be carried out in August - December 2020

## 3. Result and Discussion

### 3.1 Implementation Results

#### a. The Effectiveness of Massage Rolling (Back) on Increasing Breast Milk Production in Postpartum Mothers

**Table 1**

The Effectiveness of Massage Rolling (Back) on Increasing Breast Milk Production in Postpartum Mothers at the Deliana Pratama Clinic

Treatment		Breastmilk production		Mean	SD	SE	Pvalue
		Before	After				
Massage	Rolling	0.001	0.57	-0.567	0.504	0.092	0.001
(Back)							

Based on the table with the Paired T Test Dependent T Test that the p-value shows 0.001 ( $< 0.05$ ) which means that there is a significant difference in milk production in postpartum mothers before rolling massage with after rolling massage, so it is concluded that there is effectiveness of rolling massage (back) to increase milk production in postpartum mothers in Deliana Primary Clinic

### 3.2 Discussion

From the research results, it was found that the rolling massage method (back) was effective for increasing breast milk production in postpartum mothers with a p-value of 0.001 ( $< 0.05$ ). According to the theory, massage is an effective supportive therapy to reduce physical discomfort and improve mood disorders. Reducing the discomfort of breastfeeding mothers will help smooth out breastfeeding (Aprillia, 2010).

Rolling massage The back is a massage of the spine (ribs 5-6 to scapula with a circular motion) which is done to the mother after giving birth to help the work of the hormone oxytocin in expressing breast milk, accelerating the parasympathetic nerves to transmit signals to the back of the brain to stimulate the work

of oxytocin in flowing breast milk out (Desmawati, 2013). Rolling Massage Technique (Back) is an action that provides a relaxing sensation to the mother and smoothes the flow of nerves and milk ducts for both breasts (Perinasia, 2010).

The results of research conducted by (Nurhanifah, F, 2013) on the effectiveness of rolling back massage showed an increase in breast milk production. Massage is an effective supportive therapy to reduce physical discomfort and improve mood. The reduction of discomfort in nursing mothers will help smooth the reduction of breast milk. Back rolling massage has a relaxing effect on the mother, indirectly stimulating the hormone oxytocin which can help the process of expressing breast milk (Roesli, 2008).

This research is also in line with research conducted by Ekawati (2017) showing statistical results with a p-value of 0.001 ( $p < 0.05$ ), which means that there is an effect of rolling back massage on increasing breast milk production in postpartum mothers. This is because the inhibition of the hormone prolactin, which produces breast milk, is inhibited by high levels of estrogen after giving birth, so that the milk cannot come out or only come out a little. For that it is necessary to stimulate the release of these hormones. One of them is by providing a rolling back massage. So that by giving actions such as rolling back massage can increase milk production in postpartum mothers.

Researchers saw in this study the need for socialization of rolling massage to postpartum mothers in order to be able to provide exclusive breastfeeding or to prepare exclusive breastfeeding starting during pregnancy. Rolling massage can be given to mothers who have problems in breastfeeding, especially mothers who are hampered by the smoothness of their milk. Thus, mothers who get rolling massage (back) have relatively more milk production than before getting rolling massage (back).

#### 4. Conclusion

- a. There is a significant difference in the increase in milk production between before rolling massage and after rolling massage on postpartum mothers.
- b. The results showed that the rolling massage method (back) was effective for increasing milk production in postpartum mothers with a p-value of 0.001 ( $< 0.05$ ).

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