

## The Effectiveness of Giving a Combination of Oxytocin Massage and Breast Care on Milk Expenditure at Hapsah Hospital, Bone Regency

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### ABSTRACT

In Indonesia, the coverage of exclusive breastfeeding in 2013 was 30.2% and increased in 2018 to 37.3%. Thus, the prevalence of exclusive breastfeeding is still below the achievement target of the 2021 RPJMN (45%) (Ministry of Health Republic of Indonesia, 2020). Indonesia has the highest infant mortality rate in Southeast Asia. The main causes of infant death include diarrhea, malnutrition and infection. This morbidity and mortality can be prevented and overcome by exclusive breastfeeding which is a natural process that can have a positive impact on mothers and babies, because without exclusive breastfeeding babies are more susceptible to various diseases that increase morbidity and mortality. The purpose of this study was to determine the effectiveness of oxytocin massage and breast care on the lactation of postpartum mothers. The research method is quasi-experimental research using a two group pre and post test design, with a total sample of 30 samples which are divided into 2 groups, namely the control group and the experimental group. The results of the study after oxytocin massage and breast care for 3x1 for 3 days, an increase in the number of respondents who experienced an increase in smooth milk production, namely 14 (93.3%), almost one hundred percent of respondents experienced smooth breastfeeding and only 1 experienced substandard milk production. (6.7) % with a p\_Value value of 0.000 which means ( $p < 0.005$ ). So oxytocin massage therapy and breast care are effective in smoothing out milk in post partum mothers.

**Keywords:** ASI, Oxytocin Massage, Breast care

Received: 14.11.2021	Revised: 22.11.2021	Accepted: 13.12.2021	Available online: 20.12.2021
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### Suggested citations:

Ramadani, F. & et al. (2021). The Effectiveness of Giving a Combination of Oxytocin Massage and Breast Care on Milk Expenditure at Hapsah Hospital, Bone Regency. *International Journal of Community Service*, 02 (02), 23-29. DOI: 10.55299/ijcs.v2i2.263

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## INTRODUCTION

Mother's Milk (ASI) is formed during pregnancy and breast milk is produced naturally by the body, is the best food for babies. United Nation Children (UNICEF) and the World Health Organization (WHO) recommend exclusive breastfeeding until the baby is 6 months old, which is called exclusive breastfeeding, then it can be continued until the baby is 2 years old. United Nation Children (UNICEF) states that the death of 30 thousand children in Indonesia every year can be prevented through exclusive breastfeeding for 6 months from the birth of the baby<sup>1</sup>

In Indonesia, data from the Ministry of Health recorded that the rate of exclusive breastfeeding increased from 29.5% in 2016 to 35.7% in 2017 <sup>2</sup>. This coverage rate is still very low considering the important role of breastfeeding in a child's life. according to the WHO target, the minimum provision of exclusive breastfeeding in Indonesia is 50% (WHO, 2019). The Ministry of Health targets to increase the target of exclusive breastfeeding to 80%. However, exclusive breastfeeding in Indonesia is actually still low, namely 74.5% (Balitbangkas, 2019). Indonesia's health profile data noted that in 2018, the coverage of infants receiving exclusive breastfeeding was 68.74%. <sup>3</sup>

Milk production is one thing that needs attention because breast milk is a good source of nutrition for babies. The problem that often occurs in breastfeeding mothers in the first month postpartum is the lack of milk production. <sup>4</sup> Insufficient breastfeeding will have an impact on the nutrition and health of the baby. One way to overcome the lack of milk production is by oxytocin massage which is useful for stimulating the hormone oxytocin in milk production. Oxytocin massage can stimulate the parasympathetic nerves to instruct the hindbrain to secrete the hormone oxytocin, thereby stimulating the release of breast milk

Based on the results of research conducted by Priharyanti 2018,<sup>6</sup> it is assumed that doing oxytocin massage can help postpartum mothers secrete more milk production compared to postpartum mothers who do not do oxytocin massage. The results showed that the amount of breast milk produced by postpartum mothers with oxytocin massage was 1.113 cc, while the amount of milk produced by postpartum mothers without oxytocin massage was 0.547c.

In addition to oxytocin massage, breast care is a way to stimulate milk production in post partum mothers. Breast care for post partum mothers in the form of breast massage to improve blood circulation, treat breast nipples so that they are clean and not easily chafed, this is useful for expediting milk production.

Based on an initial survey conducted by researchers at the Hapsah Hospital, Bone Regency, researchers found that 90% of post partum mothers did not know how to care for their breasts and oxtocin massage and 80% of them complained that their milk had not come out until the 3rd day post partum.

## METHODS

This research is a quasi-experimental study using a two group pre and post test design, namely the design before and after the intervention using two groups. The research design carried out the first test (pre-test) given to the experimental group,

after which the researcher intervened with the respondents who then carried out a post-test to evaluate the effect of oxytocin massage and breast care on milk production. Time of study 19 July - 20 September 2021, the research location was at Hapsah Hospital, Bone Regency with a total sample of 30 people who were divided into 2 groups, namely the experimental group with 15 samples and the control group with 15 samples. The treatment was given in the form of oxytocin massage therapy and breast care which was given 3 times a day for 3 consecutive days. Each treatment was carried out for 15 minutes. By using olive oil.

## RESULTS AND DISCUSSION

Based on the results of research conducted at Hapsah Hospital, Bone Regency, 30 subjects met the inclusion criteria, 15 people in the experimental group and 15 people in the control group. The experimental group was treated with oxytocin massage and breast care 3 times a day for 3 consecutive days with a duration of 1 time for 15 minutes and the control group was given no treatment. The complete research results are presented as follows:

Table 1  
Distribution of Milk Production in Post Partum Mothers Before Breast Care and Oxytocin Massage in the Experimental Group

No	Production of Breast Milk Before Treatment	Distribution	
		f	%
1	Fluent	2	13,3
2	No Fluent	13	86.7
Total		15	100

Based on table 1 it is known that based on the results of the descriptive analysis for breast milk production before breast care and oxytocin massage was carried out at Hapsah Hospital, Bone Regency, there were 12 (86.7%) respondents whose milk production was not smooth, while only 2 mothers (13.3) produced milk smoothly. ) respondents.

Table 2  
Distribution of Milk Production in Post Partum Mothers before Breast Care and Oxytocin Massage in the Control Group

No	Production of Breast Milk Before	Distribution	
		f	%
1	Fluent	3	20
2	No Fluent	12	80
Total		15	100

Based on table 2, it is known that based on the results of the descriptive analysis for breast milk production in the control group, 12 (86.7%) of respondents did not produce milk smoothly, while only 2 (13.3) respondents had good milk production.

Table 3  
Distribution of Milk Production in Post Partum Mothers after Breast Care and Oxytocin Massage in the Experimental Group

No	Breast Milk Production After Treatment	Distribution	
		f	%
1	Fluent	14	93,3
2	No Fluent	1	6,7
Total		15	100

Based on table 3 it is known that based on the results of the descriptive analysis for breast milk production after breast care and oxytocin massage at Hapsah Hospital, Bone Regency, there were 14 (93.3%) respondents whose milk production was smooth, while only 1 mother (6.7 %) of respondents.

Table 4  
Distribution of Breast Milk Production in Post Partum Mothers after Intervention in the Control Group

No	Milk production	Distribution	
		f	%
1	Fluent	7	46,7
2	No Fluent	8	53,3
Total		15	100

Based on table 4 it is known that based on the results of the descriptive analysis for the production of breast milk in the control group, it was found that 7 (46.7%) respondents produced milk smoothly, while mothers who produced breast milk smoothly 7 (53.3) respondents.

Table 5  
The effectiveness of breast care and oxytocin massage on post partum milk production at Hapasah Hospital, Bone Regency in the control group and the experimental group  
N=30

No	Group	N	Before	After	Sig. (2-Tailed)
1	Experiment	15	0.13	0.93	0.000
2	Control	15	0.20	0.46	

Based on the results of the study, it was found that oxytocin massage and breast care were more effective with an increase in the mean value in the experimental group of (0.80) in the smoothness of milk production compared to the control group with an increase in the mean value of (0.26). From the results of the Wilcoxon Test statistical test, it was obtained that the p-value before and after oxytocin massage and breast care obtained a p-value of 0.000 ( $p < 0.005$ ) meaning that oxytocin massage and breast care are effective in smoothing milk production in post partum mothers.

### Discussions

The results of the research show that oxytocin massage and breast care in post partum mothers are very effective things to stimulate breastfeeding. This can be seen from the results of the data obtained before and after the therapy, namely Based on table 1 it is known that Based on the results of descriptive analysis for breast milk production before Breast care and oxytocin massage at Hapsah Hospital, Bone Regency, found that 12 (86.7%) respondents had poor milk production, while only 2 (13.3) respondents had good milk production. Meanwhile, after oxytocin massage therapy and breast care, based on table 3 it is known that based on the results of the descriptive analysis for breast milk production after breast care and oxytocin massage, Hapsah Hospital, Bone Regency, it was found that 14 (93.3%) respondents had good milk production, while only 1 mother (6.7%) of respondents whose milk production was not smooth. This indicates that oxytocin massage and breast care are effective in smoothing milk production.

The results of this study are in accordance with what was conducted by Diniyanti (2019) there are differences in the smoothness of milk production before and after back massage (oxytocin) and warm breast compresses. Research conducted by Muliani (2018) The effectiveness of giving a combination of oxytocin massage and breast care for breast milk production can significantly increase milk production through direct stimulation of massage and massage of the breast muscles, causing contraction of myoepitel cells and causing milk to come out smoothly when the baby suckles at its mother.11,12,13

Oxytocin massage is more effective because doing massage along the spine (vertebrae) up to the fifth-sixth rib bones will make the mother feel relaxed and comfortable by stimulating the hormones prolactin and oxytocin after giving birth. Another thing that makes oxytocin massage more effective is that the massage can be done by the husband, the mother's privacy is better maintained so that it will provide comfort to the mother, the mother feels calm so that the milk production becomes more.

According to research conducted by Tabita (2019), according to the researchers' assumption that oxytocin massage performed on postpartum mothers can increase milk production because it can trigger the release of the hormone oxytocin. When oxytocin massage is carried out, oxytocin will release breast milk towards the sinuses and nipples resulting in milk ejection and increased milk production. From the results of his research, it was seen that there was an increase in the average before and after the oxytocin massage

Oxytocin massage is one of the non-pharmacological interventions or administration to help patients relax and relieve discomfort. Relaxation aims to reduce

levels of epinephrine and non-epinephrine in the blood so that it becomes balanced (equilibrium). In addition, massaging the back area can also stimulate endorphins. Endorphin functions as an ejector, causing a feeling of relaxation and calm, so that massage can reduce muscle tension. Massage or stimulation of the spine, the neurotransmitter will stimulate the modulla oblongata then sends a message to the hypothalamus in the posterior pituitary to release oxytocin, causing the breasts to secrete milk. Massage in the spinal area causes relaxation, relieves stress so that the hormone oxytocin comes out and will help expel milk.15,16,17,18

## CONCLUSION

Based on the results of research and analysis on the effectiveness of oxytocin massage and breast care on milk production at Hapsah Hospital, Bon Regency, it can be concluded that before oxytocin massage therapy and breast care were carried out, most post partum mothers experienced non-fluent breastfeeding, namely 13 (86, 7%) of respondents and a small proportion of smooth breastfeeding were 2 (13.3%) respondents, and after oxytocin massage and breast care for 3x1 for 3 days, an increase in the number of respondents who experienced an increase in smooth milk production was obtained, namely 14 (93.3 %) almost one hundred percent of respondents experienced smooth breastfeeding and only 1 (6.7)% experienced substandard breastfeeding with a p\_Value value of 0.000 which means ( $p < 0.005$ ). So oxytocin massage therapy and breast care are effective in smoothing out milk in post partum mothers.

### Thank-you note

To all parties who participated and helped in completing this research.

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