



THE EFFECT OF GIVING A COMBINATION OF LAVENDER AROMATHERAPY OIL AND OXYTOCIN MASSAGE ON THE SMOOTH FLOW OF BREAST MILK IN BREASTFEEDING MOTHERS

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ABSTRACT

Introduction: Breast milk is known to have good nutritional content, following WHO recommendations regarding the importance of exclusive breastfeeding for babies during the first six months. The factors inhibiting the release of breast milk are very diverse, and one way to overcome this is by giving a combination of lavender aromatherapy oil and oxytocin massage by massaging the back area of the spine. Combining these two methods can influence the flow of breast milk to increase the release of the hormone oxytocin. The research aimed to identify the effect of a combination of lavender aromatherapy oil and oxytocin massage on the smooth flow of breast milk in breastfeeding mothers.

Methods: This type of research is pre-experimental with a one-group pretest-posttest design approach. The number of respondents was 30 breastfeeding mothers using the purposive sampling research method according to the inclusion and exclusion criteria. The independent variable combines lavender aromatherapy oil and oxytocin massage, given for a week according to the SOP for 15-20 minutes for each respondent. The dependent variable is smooth breastfeeding, conducting interviews and observations before and after the intervention. The smoothness of breastfeeding is determined through maternal and infant indicators. Data analysis used the Wilcoxon test with SPSS for Windows versi 22.

Result: The research results before the intervention were that half of the respondents had good breastfeeding fluency, namely 15 people (50%), and after being given the intervention, most respondents had good breastfeeding fluency, namely 20 people (66.7%). The Wilcoxon test results showed a p value of 0.000, which means that there is an effect of giving a combination of lavender aromatherapy oil and oxytocin massage on the smooth flow of breast milk in breastfeeding mothers.

Conclusion: Providing a combination of lavender aromatherapy oil and oxytocin massage needs to be applied to breastfeeding mothers to improve the smoothness of breastfeeding from the start of breastfeeding.

Keywords: *lavender aromatherapy, oxytocin massage, smooth breastfeeding*

INTRODUCTION

Mother's milk (ASI) is a baby's natural nutrition with the most suitable nutritional content for optimal growth. The importance of giving breast milk to babies is reflected in the World Health Organization (WHO) recommendation that every newborn receive exclusive breast milk for six months. Exclusive breastfeeding has benefits in terms of reducing infant mortality and morbidity, optimizing infant growth, helping the development of children's intelligence, and helping to lengthen pregnancy intervals.¹ Breastfeeding is a natural activity of giving breast milk to babies or toddlers, which can be started after birth or given for the first time during the Early Breastfeeding Initiation (EBI) process. Generally, breast milk comes out 2-3 days after birth. Several factors can influence the smooth production of breast milk on the first day of birth: stress, parity, maternal illness or health, cigarette or alcohol consumption, nutrition, and breast care.¹

Government Regulation Number 33 of 2012 concerning Exclusive Breastfeeding is a method implemented to solve problems related to achieving exclusive breastfeeding coverage in Indonesia. The Ministry of Health strives for mothers to breastfeed their babies exclusively for 6 months. Coverage of babies receiving exclusive breast milk in 2020 is 66.1%. This figure has exceeded the 2020 Strategic Plan target of 40%.² Coverage of exclusive breastfeeding in Banyuwangi Regency in 2019 for less than 6 months reached 86.6%, while for 2020, exclusive breastfeeding for less than 6 months reached 87.6%. From the statement data, Exclusive ASI in the Banyuwangi Regency area has experienced quite a good increase, all achieving the targets set.⁴ Based on preliminary study data obtained in Padang Village, Singojuruh District, Banyuwangi Regency, the number of babies receiving exclusive breastfeeding in

2021 is 59, and the target number of exclusive breastfeeding in Padang Village in 2022 is 53.

One of the problems with not achieving exclusive breastfeeding is due to poor milk production in the early postpartum period. The decrease in the production and release of breast milk in the first days after giving birth is caused by a lack of stimulation of the hormones prolactin and oxytocin which play an important role in the smooth production and release of breast milk.⁴ If this hormone is blocked from being produced, it can affect the flow of breast milk. Some ways to stimulate the oxytocin hormone that are often used are oxytocin massage, lactation massage, aromatherapy, acupressure, hypnobreastfeeding, cold or warm compresses, use of herbs, and so on.⁵ Combining oxytocin massage and lavender aromatherapy for breastfeeding mothers are two efforts to increase breast milk production. This combination affects breast milk production because of spinal massage on the back and the fragrance of lavender, which the mother can feel through her sense of smell which can increase the release of the hormone oxytocin; this provides comfort to the mother so that it helps the mother psychologically, calms her down, does not stress after postpartum, restores self-confidence, helps mothers to have positive thoughts and feelings towards their babies, increases breast milk production, facilitates breastfeeding and is very useful for unwinding mothers after giving birth.⁵

The results of research from Mega and Yuliaswati (2023) stated that there was an influence of oxytocin massage using lavender aromatherapy oil on the breast milk production of postpartum mothers where there was a significant difference in the average breast milk production between the group given the oxytocin massage intervention using lavender aromatherapy oil and the control group.

The intervention was carried out for 3 consecutive days.⁶ Therefore, researchers are interested in researching the effect of a combination of lavender aromatherapy oil for oxytocin massage on the smooth flow of breast milk in breastfeeding mothers over a longer duration of intervention.

METHODS

This research design uses Pre-Experimental with a One Group Pretest Post design approach. The research was conducted from 20 January to 15 February 2023 in Padang Village, Singojuruh District, Banyuwangi Regency, East Java. The inclusion criteria in this study were breastfeeding mothers who were willing to be given information, techniques, and oxytocin massage therapy with lavender aromatherapy oil, breastfeeding mothers with exclusive breast milk (babies aged 0-1 months), and breastfeeding mothers with problems with breast milk failure. The exclusion criteria in this study were breastfeeding mothers who had a history of illness (Hepatitis, HIV, Oncology, Smallpox, Heart, Kidney, Lung, and DM), breastfeeding mothers with a history of CS (Caesarean section), mothers breastfeeding who consume breast milk booster products, and mothers with flat and inverted nipple anatomy. The sample in this study was 30 breastfeeding mothers with exclusive breast milk who met the inclusion and exclusion criteria using a purposive sampling technique. The research was carried out by providing a combination intervention of oxytocin massage and lavender aromatherapy oil according to the SOP for 1 week. The first day, the massage was carried out by the researcher and the next day it was carried out by the respondent herself, assisted by the family with guidance from leaflets and videos from the researcher. The smoothness of breast milk was observed on the eighth day after the intervention was completed through an observation sheet by the researcher with mother and baby indicators. There are 11 indicators with a

maximum value of 22. Data analysis used the Wilcoxon test with SPSS for Windows versi 22. The ethical clearance of this research was obtained from the STIKES Banyuwangi Health Research Ethics Commission with No: 024/01/KEPK-STIKESBWI/I/2023.

RESULT

This research was conducted on 30 breastfeeding mothers who had babies aged 0-6 months in Padang Village, Banyuwangi. The research was carried out from January to February 2023.

Table 1. Data on Characteristics of Breastfeeding Mother Respondents

Characteristics	Frequency (n)	Percentage (%)
Mother's Age		
<20 years	2	6.7
20-34 years old	24	80
≥35 years	4	13.3
Education		
Elementary	5	16.6
JHS	11	36.7
SHS	11	36.7
D3/S1	3	10
Work		
Housewife	21	70
Work	9	30
Parity		
Primipara	13	43.3
Multiparous	17	53.7

Source: Primary data, 2023

Table 1 presents the distribution of respondent characteristics based on maternal age, showing that most respondents were 20-35 years old, namely 24 people (80%). The youngest respondent was 18 years old, and the oldest was 38 years old. Characteristics of respondents based on mother's education showed that most respondents had completed junior high school and high school education, namely 11 people each (36.7%). Most of the respondents were Housewives (IRT), namely 21 people (70%), and 9 people (30%) worked as teachers, with an average of 6 working as teachers and 3 working as entrepreneurs. Characteristics based on

maternal parity show that most respondents had a parity status of more than 2 as many as 17 people (56.7%), namely 9 people

with 2nd parity, 5 people with 3rd parity, 2 people with 4th parity.

Table 2. Differences in Breast Milk Fluency before and after intervention

Combination of Lavender Aromatherapy and Oxytocin Massage	Smooth breastfeeding						Total	Median	p-value*
	Good		Enough		Not enough				
	n	%	n	%	n	%			
Before intervention	10	33.3	15	50	5	16.7	30	16.00	0.000
After intervention	20	66.7	9	30	1	3.3	30	19.50	

*Wilcoxon test

Table 2 shows that before the intervention was carried out by giving a combination of lavender aromatherapy and oxytocin massage, the indicator of smooth breastfeeding in the good category was 10 people (33.3%). After the intervention, the good category increased to 20 people (66.7%). The sufficient category before the intervention was carried out was 15 people (50%), and after the intervention, the sufficient category was reduced to 9 people (30%). There were 5 people (16.7%) in the poor category before the intervention, and it was reduced to 1 person (3.3%) after the intervention was given.

Based on the wilcoxon test analysis results, a p-value of $0.000 < 0.05$, so it can be said that there is a significant effect of the combination of lavender aromatherapy and massage oxytocin on the smooth flow of breast milk in breastfeeding mothers.

DISCUSSION

The SOP sheet monitored the administration of a combination of lavender aromatherapy oil and oxytocin massage by interviewing respondents and using an observation sheet for smooth breastfeeding. The results of the pretest intervention carried out in Padang Village, Banyuwangi, showed that breast milk flow in the poor category before the intervention was carried out was found by 5 people (16.7%). After being given the

intervention, it was reduced to 1 person (3.3%). In this case, researchers found that the 4 breastfeeding mothers in the inadequate category changed to adequate after being given the intervention. Indicators of smooth breastfeeding carried out before and after the intervention of giving a combination of lavender aromatherapy oil and oxytocin massage help increase the mother's relaxation and comfort level, thereby triggering the production of the hormone oxytocin and influencing breast milk production, but cannot change the characteristics of a baby who has a fussy personality.

The results of research conducted by Mayang Wulan (2018) showed that breast milk production before the combination of oxytocin massage and lavender aromatherapy showed an average value (mean) of 5.77 with a standard deviation of 3.161 with the lowest amount of breast milk being 2 ml. The lowest amount of breast milk is 2 ml. the highest is 13 ml. After combining oxytocin massage and lavender aromatherapy, the average result (mean) was 9.05 with a standard deviation of 4.100, with the lowest amount of breast milk being 3 ml and the highest amount of breast milk being 18 ml. Analysis of the T-paired test obtained a significance value of $0.000 < 0.005$. Statistically, there was a difference in the intervention group's average breast milk production before and after

combining oxytocin massage and lavender aromatherapy.⁶ In line with the results of research that has been carried out, there is an increase in the flow of breast milk from the indicators measured. Before the intervention was given the median was 16.00 and after the intervention the median was 19.50 and the Wilcoxon test results showed a p value of 0.000, meaning that there was an effect of giving a combination of lavender aromatherapy oil with oxytocin massage on smooth breastfeeding.

The results before the intervention of breastfeeding mothers with sufficient indicators were 15 people (50.0%), and after the intervention, was reduced to 9 people (30.0%). Researchers found that 15 breastfeeding mothers experienced quite good changes in the flow of breast milk, 9 breastfeeding mothers with adequate indicators after being given the intervention came from 4 breastfeeding mothers with poor indicators, and 10 breastfeeding mothers were initially in the adequate category and changed to good indicators after being given the intervention. Giving a combination of lavender aromatherapy oil and oxytocin massage significantly influences the flow of a mother's breast milk. It can be seen from the intervention that all breastfeeding mothers experienced changes in the flow of breast milk, which became smoother, and no one experienced breast milk obstruction after the intervention.

In line with research conducted by Handayani et al. (2020), the first step is to take the amount of breast milk before doing an oxytocin massage on postpartum mothers, then do an oxytocin massage twice daily for 2-3 minutes every 1 week. After 1 week of massage, wait 3 hours after the oxytocin massage to measure breast milk output again. The calculation results showed that the average breast milk production was significantly different before and after oxytocin massage.⁷

The results of the research before the intervention was carried out showed that 10 people (33.3%) had good breastfeeding fluency categories; after the intervention, the good category increased to 20 people (66.7%), where the researchers found that breastfeeding mothers with good indicators partly came from the adequate and not enough categories. Some experienced a decline in the sufficient or insufficient categories. In this case, according to the researchers, smooth breastfeeding will become even smoother after intervention. It can be seen from the existing observation sheet that breastfeeding mothers who are already in the good category do not change to the adequate or poor category but instead become smoother and better.

The results of a literature review by Hidayati et al. (2021) show an increase in breast milk production before and after intervention in the form of oxytocin massage. This research shows that the results of the 10 articles reviewed concluded that there was an effect of increasing breast milk production before and after oxytocin massage on breastfeeding mothers.⁸

Based on the results of research data analysis using the wilcoxon test on 30 respondents, it was found that there was a difference in the flow of breast milk before and after being given a combination intervention of lavender aromatherapy oil and oxytocin massage in breastfeeding mothers with a significant value of 0.000. With the results of this research, it can be concluded that combining oxytocin massage with lavender aromatherapy is an appropriate complementary care solution to facilitate the release and production of breast milk by massaging along the spine. This massage provides the mother with a feeling of comfort and relaxation, thereby facilitating and increasing the secretion of the hormones prolactin and oxytocin.

This research result aligns with Yuliana (2016), who used consecutive sampling with 30 respondents in each

group. The analysis used is the chi-square statistical test. The results of the study showed that there was a change in increasing breast milk production namely the back massage intervention group using lavender essential oil had a 3.33 chance.⁹ However, this research is not in line with research conducted by Asiyah (2015) with the title "Lavender Aromatherapy Oil as a Medium for Increasing Breast Milk Production in 2015" calculation results using data analysis using the Chi-Square test on 24 respondents in the massage group using lavender oil and 24 respondents in the massage group using lavender oil. Massage without lavender obtained a p-value of 0.540. Thus, the p-value is greater than the α value (5%) or 0.05, so H_0 is accepted, and H_a is rejected, meaning that statistically, there is an insignificant relationship between massage using lavender aromatherapy oil and increased breast milk production seen from defecation and urination baby.¹⁰

Oxytocin massage is one solution to overcome irregularities in breast milk production. Oxytocin massage is carried out along the spine (vertebrae) up to the fifth-sixth rib bones. It is an attempt to stimulate the hormones prolactin and oxytocin after giving birth, where the mother will feel calm and relaxed, increase the pain threshold, and love her baby so that the oxytocin hormone can calm the mother so that the milk comes out quickly. This oxytocin massage relaxes the mother, improves nerves, and smooths milk flow in both breasts.

Based on the research results and theories stated previously, it can be concluded that oxytocin massage has great benefits for overcoming breast milk irregularities due to the stimulation of the hormones prolactin and oxytocin, which play an essential role in the smooth production and release of breast milk. This is supported by the results of previous research, which also showed an increase in breast milk after being given oxytocin massage intervention.

The limitation of this research is that there is no control group as a comparison group to see whether the changes in smoothness breastfeeding obtained are truly the result of the intervention provided.

CONCLUSION

Giving a combination of oxytocin massage with lavender aromatherapy oil to breastfeeding mothers can increase the flow of breast milk. Therefore, breastfeeding mothers can take this action as a way to maintain the smooth flow of breast milk from the start of breastfeeding.

ACKNOWLEDGEMENT

The researcher would like to thank STIKES Banyuwangi for providing the opportunity to conduct research, Padang Village for permitting to collect data in its work area, and all breastfeeding mother respondents who were willing to participate in collecting research data.

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