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The Effect of Breast Massage Education on Breast Milk Production in Postpartum Mothers in Lamamek Village, West Simeulue District, Simeulue Regency, Aceh Province

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A B S T R A C T

Breast milk is the best source of nutrition for babies which plays an important role in growth and development. However, there are still many postpartum mothers who experience obstacles in milk production, especially in the early postpartum period. One of the non-pharmacological efforts that can be made is breast mass education which aims to stimulate the hormones prolactin and oxytocin so that it can increase breast milk production. To determine the effect of breast mass education on breast milk production in postpartum mothers in Lamamek Village, West Simeulue District, Simeulue Regency, Aceh Province. This study uses a quasi-experimental design with a one group pretest-posttest design approach. The population in this study is all postpartum mothers as many as 52 people with a sampling technique, namely total sampling. Data collection was carried out through observation of breast milk production before and after the intervention. Data analysis was conducted using the Paired Sample T-Test. Results: The results of the study showed an increase in breast milk production after being given breast massage education. The average value of milk production before intervention was 14.85 ml and after intervention increased to 25.90 ml. The results of the statistical test

showed a p value = 0.000 (p < 0.05), which means that there is a significant influence between breast mass education on breast milk production. There is an effect of breast mass education on increasing breast milk production in postpartum mothers in Lamamek Village, West Simeulue District, Simeulue Regency. Suggestion: It is hoped that health workers can increase education about breast mass to postpartum mothers as an effort to increase optimal breast milk production.

Keywords: Breast Massage, Breast Milk Production, Post Partum Mothers

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INTRODUCTION

Breast milk (breast milk) is the best source of nutrition for babies because it contains complete nutrients, is easy to digest, and has immunological factors that play an important role in protecting babies from various diseases. The World Health Organization (WHO) recommends exclusive breastfeeding during the first six months of a baby's life and continued until the age of two years or more with appropriate complementary feeding (WHO, 2024). Optimal breastfeeding has been proven to contribute to reducing infant morbidity and mortality rates and improving the quality of child growth and development.

However, the coverage of exclusive breastfeeding globally and nationally has not yet reached the set target. WHO and UNICEF (2024) report that globally only about 48% of babies aged 0–6 months get exclusive breastfeeding. In Indonesia, despite the increase in exclusive breastfeeding coverage, there are still various obstacles that cause mothers to not succeed in breastfeeding optimally, especially in the early postpartum period (Ministry of Health of the Republic of Indonesia, 2024). The postpartum period is a period that greatly determines the success of breastfeeding. During this period, mothers often face problems such as perceived lack of milk production, delayed milk production, breast dams, physical fatigue, and lack of knowledge about breastfeeding techniques and breast care. This condition can inhibit the work of the

hormones prolactin and oxytocin (Widianingtyas, S. I., 2022) which play a role in the production and production of breast milk (Ministry of Health of the Republic of Indonesia, 2023).

One of the non-pharmacological efforts that can be made to increase breast milk production is breast massage. Breast massage is a breast stimulation technique that aims to improve blood flow, smooth the milk ducts, reduce breast dams, and stimulate the release of the hormones prolactin and oxytocin. WHO (2023) states that breast stimulation through massage carried out appropriately and regularly can help increase breast milk production and support breastfeeding success in postpartum mothers. The success of breast massage is greatly influenced by the mother's knowledge and skills in performing the technique. Therefore, breast massage education is an important part of postpartum maternal health services. UNICEF (2024) emphasizes that breastfeeding education provided in a structured manner by health workers can increase understanding, confidence, and the ability of mothers to manage the lactation process independently.

Poor milk production can usually be overcome with several efforts, including by paying attention to the nutrition of breastfeeding mothers, namely needing to eat 1 1/2 times better than usual and drink at least 8 glasses a day, breastfeeding mothers must be sufficiently rested and maintain peace of mind and avoid working too tired (Anik, 2009). Efforts or stimuli to increase breast milk production that are widely done in new BPM are oxytocin massage, even that is only done in the clinic and when the patient has gone home is usually no longer done because this oxytocin massage requires one person to massage behind the patient. Experts have invented a new method that is with woolwich massage. Woolwich massage is a technique of massaging the breast (breast massage) to increase the production of breast milk, the mother can do this massage herself and whenever the mother wants, this massage does not cost and is very practical to do (Wijayanti.T, 2017).

The breast massage technique (breast massage) is one of the efforts made to stimulate the hormones prolactin and oxytocin in the mother after childbirth which gives the mother a relaxing sensation. Breast massage (breast massage) is done by massaging in a circular manner using both thumbs on the areainus lactiveerius precisely 1-1.5 cm outside the areola of the mamae for 15 minutes which will stimulate nerve cells in the breast, passed to the hypothalamus and responded by the anterior

pituitary to secrete the hormone prolactin, which will be flowed by the blood to the breast myoepitel cells to produce breast milk (Compliment, 2014).

In addition to breast massage (breast massage), education can also be carried out about increasing breast milk production in mothers. According to Atmawati (2010), the success of a mother in giving exclusive breastfeeding is inseparable from the factors that affect the quality and quantity of breast milk because with good knowledge, a person's behavior can be directed to a better thing. According to data from the Nanggroe Aceh Darussalam provincial health office, it shows that in 2022 it shows that exclusive breastfeeding coverage was 62.81%, in 2020 exclusive breastfeeding coverage was 65.43%, and in 2021 it was 66.66 exclusive breastfeeding coverage. Based on this data, it can be said that exclusive breastfeeding for babies aged 0-6 months in Nanggroe Aceh Darussalam has increased but has not met the Standard above 90% (Aceh Health Office, 2023).

West Simeulue Health Center, Simeulue Regency, based on the work program implemented, there is a work program for mothers giving birth has not been implemented, so it is necessary to improve programs in services so as to improve the health of toddlers through an exclusive breastfeeding program. Mothers who have just given birth with enough breast milk so that the baby is healthy, it is necessary to educate postpartum mothers in Lamamek Village. Based on data from 81 breastfeeding mothers, only 52 people give birth, this can reduce the degree of health in babies whose healthy babies get breast milk above 90%, in the data obtained only 63% of breastfeeding mothers. Based on interviews with mothers after giving birth who breastfed out of 10 people, 6 people breastfed their babies with little milk production that came out, 3 mothers said their babies often cried but the milk came out, 2 mothers said that there was less breast milk supplemented by formula milk.

METHOD

The research design used in this study is an experimental research with a quasi-experimental approach. The design used is a pre-test and post-test with one group design with ethical principles (usman Chairul, 2017) in (Huda & Waluyo, 2022) which aims to determine the effect of breast mass education on increasing breast milk production in Lamamek

Village, West Simeulue District, Simeulue Regency. In this study, respondents only consisted of one group that was observed before and after the intervention in the form of breast massage education (Nursalam, 2010). The pretest is carried out to measure breast milk production before the intervention, then a posttest is carried out after the education to see the changes that occur.

This research was carried out in Lamamek Village, West Simeulue District, Simeulue Regency in February 2026. The population in this study is all postpartum mothers who are breastfeeding in the region, with a total of 52 people. The sampling technique used is total sampling, where all members of the population are used as research samples. Thus, the number of samples in this study is 52 postpartum mothers who are breastfeeding in Lamamek Village, West Simeulue District, Simeulue Regency.

RESULTS AND DISCUSSION

This research will be carried out in Lamamek Village, West Simeulue District, Simeulue Regency, Aceh Province in 2026. Lamamek Village is a working area of the West Simeulue Health Center with a fairly active coverage of maternal and child health services, including antenatal services, childbirth, postpartum and exclusive breastfeeding programs. Based on data from village midwives, postpartum mothers are still found to have complaints of suboptimal milk production, especially in the early days of the postpartum period. Therefore, breast massage education was chosen as a nonpharmacological intervention that is easy to do and can be applied independently by the mother.

Table 1. Frequency Distribution Based on Maternal Age in Breast Mass

Yes	Mother's Age	Frequency	Percentage(%)
1	17-21 years old	3	5.8
2	22-34 years old	40	76.9
3	Over 35 years	9	17.3
	Total	**52**	**100.0**

Data source: Processed by the author, 2026

Based on the table above, it is known that the majority of respondents aged 22-34 are 40 people (76.9%)

Table 2. Frequency Distribution Based on Education on Breast Massage

No	Education	Frequency	Percentage(%)
1	Elementary School	22	42.3
2	SMA	23	44.2
3	Higher Education	7	13.5
	Total	**52**	**100.0**

Data source: Processed by the author, 2026

Based on table 3.2. It is known that the majority of respondents with high school education are 23 people (44.2%).

Table 3. Frequency Distribution by Occupation on Breast Massage

No	MotherWork	Frequency	Percentage(%)
1	Work	7	13.5
2	NoWorks	45	86.5
	Total	**52**	**100.0**

Data source: Processed by the author, 2026

Based on the table above, it is known that the majority of respondent mothers do not work as many as 45 people (86.5%).

Table 4. Frequency Distribution Table Based on Parity on Breast Mass

No	Paritas	Frequency	Percentage(%)
1	Good Under 3	44	84.6
2	Bad Above 3	8	15.4
	Total	**52**	**100.0**

Data source: Processed by the author, 2026

Based on the table above, it is known that the majority of Parity respondents are below 3 as many as 44 people (84.6%).

Table 5. Frequency Distribution Based on Breastfeeding Frequency in Breast Mass

No	FrekuensiMenyusui	Frequency	Percentage(%)
1	Rare(1-7x/hr)	11	21.2
2	Occasional(8-9x/hr)	10	19.2
3	Frequency (10-12x/hr)	20	38.5
4	Very OftenAbove12-14 x/hr)	11	21.2
	Total	**52**	**100.0**

Based on the table above, it is known that the majority of respondents

with frequent breastfeeding frequency (10-12x/hr) are 20 people (38.5%).

Table 6. Frequency Distribution Based on First Day Breast Milk Production in Breast Mass

No	First ProductionASIHari	Frequency	Percentage(%)
1	Less(0-15Ml)	40	76.9
2	Enough (16-19ML)	12	23.1
3	Lots (Above 20ML)	0	0.0
	Total	**52**	**100.0**

Data source: Processed by the author, 2026

Based on the table above, it is known that the majority of respondents with first-day breast milk production less than 15ml are 40 people (76.9%).

Table 7. of the Effect of Breast Massage on the Second Day of the Morning on Breast Milk Production

Masase Influence	Second Day Pre Morning	Day Two Morning Post	P value
Mean	1.15	1.29	0.000
Lower Limit Upper	1.05	1.16	
Limit (Upper) Stnd.	1.26	1.42	
Deviation	0.364	0.457	
T.test	22.838	20.310	

Data source: Processed by the author, 2026

Based on the table above, on the second day of the morning (before breast massage) the average amount of breast milk was 22,838 and after breast massage intervention the amount of breast milk had not increased by an average of 20,310

Table 8. of the Effect of Breast Massage on the Second Day on Breast Production

Masase Influence	Day Two Afternoon Pre	Second Day Afternoon Post	P value
Mean	1.60	2.12	0.000
Lower Limit Upper	1.46	2.01	
Limit (Upper) Stnd.	1.73	2.22	
Deviation	0.495	0.379	
T.test	23.231	40.298	

Data source: Processed by the author, 2026

Based on the table above, it can be seen that on the second day of the pre afternoon (before breast massage) the amount of breast milk averaged 23,231 and after breast massage intervention the amount of breast milk began to increase by an average of 40,298.

Table 9. of the Effect of Breast Massage on the Third Day of the Morning on Breast Production

Masase Influence	Third Day Pre Morning	Third Day in the Morning Post	P value
Mean	1.92	2.31	0.000
Lower Limit Upper	1.75	2.18	
Limit (Upper) Stnd.	2.10	2.44	
Deviation	0.621	0.466	
T.test	22.317	35.707	

Data source: Processed by the author, 2026

Based on the table above, it can be seen that on the third day of the pre-morning (before breast massage) the average amount of breast milk was 22,317 and after breast massage intervention the amount of breast milk increased by an average of 35,707.

Table 10. The Effect of Breast Massage on the Third Day of Afternoon in the Face of Breast Milk Production

Masase Influence	Day Three Afternoon Pre	Third Day Afternoon Post	P value
Mean	2.58	2.58	0.000
Lower Limit Upper	2.44	2.85	
Limit (Upper) Stnd.	2.72	3.00	
Deviation	0.499	0.269	
T.test	37.249	78.339	

Data source: Processed by the author, 2026

Based on table on the third day of the pre-morning (before breast massage) the average amount of breast milk was 37,249 and after breast massage intervention the amount of breast milk increased a lot with an average frequency of 78,339.

DISCUSSION

Age is an important factor in facing childbirth. The results of the study showed that the average age of respondents was in the productive

age range, which was 22-34 years. This age range is included in the category of healthy reproductive age (20-35 years), so it is considered safe and good to undergo the breastfeeding process and perform breast massage. This finding is in line with the research of Jumria et al. (2018), which divided the female reproductive period into three periods, namely young reproduction (15–19 years), healthy reproduction (20–35 years), and old reproduction (36–45 years). The majority of respondents in this study were non-working mothers or housewives. This condition provides an advantage because mothers have more time to take care of the baby and obtain information related to optimal breastfeeding. This is in accordance with the opinion of Juliastuti (2011) who states that housewives have a greater opportunity to give breast milk without time and busyness. This finding is also supported by research by Dahlan et al. (2013) which shows that most breastfeeding mothers do not work.

The frequency of breastfeeding in this study was relatively high, namely 10-12 times in 24 hours. This is in accordance with the recommendation that babies should be breastfed as often as possible (on demand), especially in the early stages of birth. Marni (2014) said that newborns generally breastfeed every 2-3 hours or about 10-12 times per day. The more often the baby breastfeeds, the more milk production and production will increase. This is also supported by Ambarwati and Wulandari (2010) who suggest a minimum frequency of 8–10 times a day in the early period after childbirth.

The results of the study show that breast mass education has an effect on increasing breast milk production. Breast massage is a mechanical stimulation that can stimulate the hormones prolactin and oxytocin, which play a role in the production and production of breast milk, respectively. With this stimulation, the flow of breast milk becomes smoother and problems such as breast milk dams can be overcome. This finding is in line with the research of Astuti and Handayani (2020) and Rahmawati and Lestari (2021) who stated that breast mass can significantly increase breast milk production in postpartum mothers.

In addition, the education provided also improves the knowledge and skills of mothers in performing breast massage independently. Maternal knowledge is an important factor in breastfeeding success, as stated by Sari and Nurhayati (2022) that the level of maternal knowledge has a significant relationship with the success of breastfeeding. In theory, the World Health Organization (WHO, 2023) recommends breast

stimulation through massage as a non-pharmacological method to support the success of breastfeeding, especially in the early postpartum period. Breast massage helps speed up the let-down reflex so that breast milk can come out more smoothly. Thus, it can be concluded that breast massage is an effective, simple, and easily applied intervention to increase breast milk production in postpartum mothers. The application of regular breast massage, accompanied by proper education and assistance from health workers, can support the success of optimal breastfeeding.

CONCLUSION

Breast mass has a significant influence on increasing breast milk production in postpartum mothers. Mothers who receive education and perform breast massage regularly tend to experience a more optimal increase in breast milk production. Thus, education and the application of breast mass need to be improved as an effort to support the success of breastfeeding and improve the health of mothers and babies.

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