

ORIGINAL ARTICLE

The Effect of Lactation Massage Combination and Postpartum Breast Care Aged One to Three Days on the Experience of Adequate Breastfeeding

*Rahmatul Ulya¹, Santhna Letchmi Panduragan¹, Shentya Fitriana², Hafizah Che Hassan¹

¹ Lincoln University College, 47301 Petaling Jaya, Selangor Darul Ehsan, Malaysia

² Health Polytechnic Ministry of Health Jakarta III, Melati, Kota Bks, Jawa Barat 17415, Indonesia

ABSTRACT

Introduction: Lack of breastfeeding in the first few days of life is an obstacle to early breastfeeding due to fear and anxiety about insufficient breastfeeding. A Proper breastfeeding experience can be enhanced through breast care, namely breast massage, nipple cleansing, and squeezing the breasts with warm and cold water. It naturally stimulates the breast to increase the hormone. Four out of 10 postpartum women complain that they are not producing enough milk for their babies. The purpose of this study was to examine the effects of a combination of lactation and breast massage care on postpartum breastfeeding production. **Methods:** A Quasi-experimental design with a one-group pretest- posttest design was used in this research. The population of this study was 32 respondents in total. Data collection in this study was carried out using researchers assessing the adequacy of breastfeeding before the intervention of a combination of lactation massage and breast care on postpartum aged one day and reassessing after being given a combination intervention of lactation massage and breast care on postpartum aged three days. **Results:** The average value of breastfeeding adequacy before being given a massage combination is 1.16, the average after being given a massage combination is 6.25, the average difference before and after is 5.09, and the p-value = 0.000. **Conclusion:** It can be concluded that the combination of lactation massage and breast care affects the adequacy of breastfeeding, with p value 0.000 ($p < 0.05$).

Malaysian Journal of Medicine and Health Sciences (2023) 19(SUPP9): 251-255. doi:10.47836/mjmhs.19.s9.34

Keywords: Lactation Massage; Breast Care; Breastfeeding Adequacy Experience

Corresponding Author:

Rahmatul Ulya, M. Keb

Email: rahmatululya354@gmail.com

Tel: +6285263335244

INTRODUCTION

The puerperium, or puerperium, is that part of the female life cycle that begins shortly after the birth of the placenta and lasts about six weeks until the reproductive organs mimic their pre-pregnancy state (1). The postpartum period is the most important part of the foundation for the baby's survival and maternal health. Women who have started breastfeeding are more likely to continue breastfeeding if they receive adequate support. Field reality shows that poor breastfeeding experiences in the first few days after childbirth become barriers to early breastfeeding caused by anxiety and fear of inadequate breastfeeding and a lack of maternal knowledge of the breastfeeding process. (2)

In General Perspective

The later the first breastfeeding is delayed, the more problems arise because breastfeeding contributes to health and wellness. The higher the level of problems that occur because breastfeeding contributes to maternal health and well-being by reducing the risk of ovarian cancer and breast cancer, as well as improving family health. Thus, it helps kill a large amount of bacteria (3). Colostrum is secreted from colostrum on the third day and is yellowish. Colostrum contains more protein than transitional lactation and appears between days 4 and 10 after maturity (4). Breastfeeding contains immunoglobulins, lactoferrin, lysosomes, antitrypsin, and lactic acid bacteria, so it has the function of nourishing and protecting the baby's body (5). According to a survey, up to 78 postpartum, women about 56.4% (4) were dissatisfied with breastfeeding on the first day of life and 26% (13) were dissatisfied with less breastfeeding, and 27% (21 women) were dissatisfied with breastfeeding failure which caused the mother

to choose formula milk. Breast milk also acts as an absorbent because it contains certain enzymes that don't interfere with other enzymes in the gut (6).

In World Perspective

World Health Organization targets the achievement of exclusive breastfeeding in the world, at 70%, but in fact, the achievement of exclusive breastfeeding in the world is only 41%. Meanwhile, based on data from the United Nations International Children's Emergency Fund (UNICEF), the achievement of exclusive breastfeeding in Indonesia has only reached 52%. Then the achievement of exclusive breastfeeding based on data from the year was 67.74% but in 2020 it decreased to 66.1% and for the West Sumatra region, it was 65.4% (7).

Indonesian Perspective

Achieving these figures shows that Indonesian babies are not yet fully breastfed. Women often have breast problems and not enough breastfeeding (8). According to the Grampian study, about 33% of women experience breast problems in the first two weeks after giving birth, followed by 28% in a few weeks (9). Problems associated with breastfeeding production in the first days after childbirth are sagging nipples, breast staining, breast inflammation, and breastfeeding due to a lack of prior nipple preparation and a lack of oxytocin during pregnancy (8). Reflexes such as anxiety and unfounded fear about not breastfeeding or not breastfeeding and not getting enough This is the most common reason given by women who Breast problems and breastfeeding are common reasons for stopping breastfeeding. Some women see this as a minor issue and consider using formula instead of breastfeeding (10).

The experience of breastfeeding adequacy can be improved by doing breast care, namely by doing breast massage, cleaning the nipples, and compressing the breasts using warm and cold water. According to Yuniarti's research, breast care naturally stimulates the breasts to secrete an increase in the hormones prolactin and oxytocin by stimulating the mammary glands through massage (11). In addition, breastfeeding can also be increased through lactation massage. According to research, lactation massage is a massage movement on certain body parts such as the head, neck, shoulders, back, and breasts to facilitate the breastfeeding process. Lactation massage works by suppressing the spinal stimulation area in the neurotransmitter which will stimulate the medulla oblongata to send a signal to the hypothalamus in the posterior pituitary to secrete the hormone oxytocin, and it affects psychology by increasing relaxation and comfort levels thereby increasing breastfeeding production (8).

MATERIALS AND METHODS

Experimental Design

This study is a quantitative study using a quasi-experimental study design and a group pre-post test design. In this design, we performed a pre-test observation, treatment or intervention, followed by a post-test, comparing the outcomes of postpartum breastfeeding measures before and after the intervention.

Sample

a sample of 32 postpartum women, sampling by purposive technique. Meanwhile, sampling took into account certain criteria : Postpartum mothers 1 to day with a history of normal delivery, mothers who have breastfeed on demand and take care of them, mothers have a strong desire to exclusively breastfeed their babies, Babies do IMD after delivery, Infants were not given formula milk at the time of the study, mother's nutrition and drinking needs are fulfilled, mother do not smoke or consume alcohol, Do not consume breast milk stimulating vitamins, Not allergic to coconut oil and olive oil, Single baby, born normal with a minimum weight of 2500g, no defects, no liptie or tongue tie, a good sucking reflex, and is exclusively breastfed.

Experimental Procedure

To obtain information from the respondents, the researchers collected data using a tool in the form of a procedural guide combining nursing massage with breast care and examination. The tool consists of three parts: Consent Form, Breastfeeding Adequacy Assessment Form, and Her Standard Operating Procedure (SOP) for Combining Lactation Massage and Breast Care. The pre-test phase was conducted through an interview and breast examination on the first day of life using the Breastfeeding Adequacy Score Sheet. In addition, the intervention was performed on the same day, i.e., the first day after birth, by massaging for 60 minutes once daily for 3 days, at the same time each day. Combining breastfeeding massage with breast care, this massage consists of a head, neck, shoulder and back massage, breast massage, nipple cleaning, and hot and cold breast compresses. After the intervention, on postnatal day 3, a post-test phase to assess the experience of breastfeeding adequacy will be recorded using an interview using the Breastfeeding Card Assessment Form and a breast examination. The statistical test used was the Paired t-test to see the effect of the combined treatment of lactation massage and breast care.

Ethical Clearance

This Research got Ethical Clearane No : 126/UN.16.2/

KEP-FK/2022 Dated : 30 August 2022 from Andalas University.

RESULTS

Data collection in this study was carried out using researchers assessing the adequacy of breastfeeding before the intervention of a combination of lactation massage and breast care on postpartum aged one day and reassessing after being given a combination intervention of lactation massage and breast care on postpartum aged three days. Then the data were analyzed by univariate and bivariate methods. The univariate analysis aims to describe the characteristics of each research variable that result in the distribution of the frequency and percentage of each variable to see the adequacy of breastfeeding in postpartum women who are given a combination of lactation massage and breast care. A Bivariate analysis was conducted in this study to identify the effect of adequate breastfeeding on postpartum women who were given a combination of lactation massage and breast care.

Based on table I, it can be seen that before the combination of lactation and breast care was carried out, the majority of respondents experienced sufficient breastfeeding in the Insufficient category as many as 20 people (62.5%) and after a combination of lactation massage and breast care, the majority of respondents were in the category of breastfeeding sufficient, which was 24 people (75%).

Statistical analysis was conducted to test the hypothesis between two variables, and obtain answers to whether there is a difference before and after and the effect of the combination of lactation

massage and breast care on a postpartum aged one to three days regarding the experience of breastfeeding adequacy.

Based on the table II above, there are differences in the results of the pretest and post-test experiences of breastfeeding adequacy, namely before the combination massage the adequacy value has an average of 1.16 with \pm sb 1.347 and a median value of 1.00 with a minimum score of 0-5 maximum. After a combination of lactation massage and breast care was performed, the experience of breastfeeding adequacy had an average value of 6.25 with \pm sb 1.107 and a median value of 7.00 with a minimum score of 4-7. The average value of breastfeeding adequacy before being given a massage combination is 1.16 and the average after being given a massage combination is 6.25, the average difference before and after is 5.09, and the p-value = 0.000. These data indicate that there is a significant difference in the average adequacy before and after with an average increase in the value of breastfeeding adequacy of 5.09. If the p-value < 0.05 then the independent variable has a significant effect on the dependent variable and if the p-value > 0.05 then the independent variable has no significant effect on the dependent variable which means H_a is accepted and it can be concluded that the combination of lactation massage and breast care affects the adequacy of breastfeeding with p value 0.000 (p < 0.05).

DISCUSSION

Based on the results conducted, pre- and post-lactation massage and breast care have been shown to use a pre-test-post-test method to determine the effects and differences between pre- and post-treatment.

Table I : Experience Adequacy of Breastfeeding

No.	Combination Lactation Massage and Breast Massage	Adequate		Inadequate		Total	
		n	%	n	%	n	%
1.	Before	12	37.5	20	62.5	32	100
2.	After	24	75	8	25	32	100

Table II : Differences in The Results of the Pretest and Post-Test Experiences of Breastfeeding Adequacy

	N	MEDIAN	AVERAGE	P-VALUE
		(MIN-MAX)		
Before	32	1.00(0-5)	1.16 \pm 1.347	0.000
After	32	7.00(4-7)	6.25 \pm 1.107	

Wilcoxon test results were mean breastfeeding aptitude score before combination massage was 1.16, mean score after combination massage was 6.25, difference between post and pre was 5.09, p-score = 0.000 ($p < 0.05$), breastfeeding massage versus breast Combination therapy is effective at 1-3 days postpartum, implying a large difference in increased breastfeeding capacity between prenatal and postpartum. The results of this study demonstrated the effectiveness of combining lactation massage and breast care to improve breastfeeding adequacy (12).

This research is supported by Yuniarti's research (11) that states that breast care influences breastfeeding mothers in postpartum (p-value = 0.000) (11). Setyaningrum's research (13) also states that there is an effect of massage on breastfeeding adequacy in postpartum (p-value = 0.000) According to Setyaningrum (13), efforts can be made to increase the adequacy of breastfeeding in addition to frequently breastfeeding the baby even though it has not come out, breastfeeding early, expressing breastfeeding, doing breast care or massage, cleaning the nipples regularly also with oxytocin massage after giving birth (13).

There are several types of breastfeeding massage, including oxytocin massage (15). Oxytocin massage is a spinal massage from the 5th to 6th nerves to the shoulder blades, speeding up the action of the parasympathetic nerves and sending commands to the back of the brain to release oxytocin. A neurotransmitter stimulation area that signals the hypothalamus in the posterior pituitary gland and stimulates the medulla oblongata to release the hormone oxytocin (16). The hormone oxytocin is called the love hormone. Because that level is about feeling happy, loved, safe, calm. and relaxed. It gives you peace of mind, boosts your confidence, and helps you think positively to meet the costs of adequate breastfeeding (2)(10).

According to researchers, a treatment that combines breastfeeding massage with breast care has been shown to increase comfort and calmness and reduce stress in mothers. more breastfeeding experience (17).

The limitation of the study is that the psychological aspects of the mothers, the frequency of nursing newborns, dietary patterns in postpartum moms, and the enumerator were not controlled for in this research, which may have affected the result of the intervention.

CONCLUSION

There are differences in the combination of lactation massage and breast care for postpartum women aged one to three days regarding the experience of

breastfeeding adequacy in Lubuk Alung in 2022 with a p-value of 0.000 (≤ 0.05). The results of this study demonstrated the effectiveness of combining lactation massage and breast care to improve breastfeeding adequacy. In the working area of the Community Health Center in Lubuk Alung, Padang Pariaman, there was a substantial impact of the combination of lactation massage and breast care on boosting breast milk production in postpartum moms. This effect was seen in the women who received the treatment. Therefore, this data may be utilized as proof to practice oxytocin massage and breast care in order to improve the amount of breast milk that is secreted by the breasts.

REFERENCES

1. Jama A, Gebreyesus H, Wubayehu T, Gebregyorgis T, Teweldemedhin M, Berhe T, et al. Exclusive breastfeeding for the first six months of life and its associated factors among children age 6-24 months in Burao district, Somaliland. *Int Breastfeed J*. 2020;Dec,15(1):1–8. <https://doi.org/10.1186/s13006-020-0252-7>
2. Davis WN, Raines C, Indman P, Meyer BG, Smith A. History and Purpose of Postpartum Support International. *JOGNN - J Obstet Gynecol Neonatal Nurs* [Internet]. 2018;47(1):75–83. Available from: <https://doi.org/10.1016/j.jogn.2017.10.004>
3. Ekawidyan KR, Khomsan A, Dewi M, Thariqi YA. Nutrition Knowledge, Breastfeeding and Infant Feeding Practice of Mothers in Cirebon Regency. *Amerta Nutr*. 2022; Jun, 6(2):173–82. <https://doi.org/10.20473/amnt.v6i2.2022.173-182>
4. Jogdeo BA, Bhore N. The Effect of Back Massage on Breast Feeding among Neonates who's Mothers Had Undergone Cesarean Section, *Int J Sci Res*. 2016;5(4):2287–90. <https://doi.org/10.21275/v5i4.nov163118>
5. Anatolitou F. Human milk benefits and breastfeeding. *Journal of Pediatric and Neonatal Individualized Medicine (JPNIM)*. 2012 Oct 23;1(1):11-8. <https://doi.org/10.7363/010113>
6. Ningsih NI, Salimo H, Rahardjo SS. Factors Associated with Pneumonia in Children Under Five after Earthquake: A Path Analysis Evidence from West Nusa Tenggara, Indonesia. *J Epidemiol Public Heal*. 2019; May, 4(3):234–46. Available from: <https://jepublichealth.com/index.php/jepublichealth/article/view/172>
7. WHO. Protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services [Internet]. World Health Organization WHO. 2017. 1–136 p. Available from: <https://apps.who.int/iris/bitstream/handle/10665/259386/9789241550086-eng.pdf>
8. Katmini K, Sholichah NM. Lactation Massage for Increasing Breast Milk Production in Postpartum Mothers. *J Qual Public Heal*. 2020; Nov, 4(1):104–

13. <https://doi.org/10.30994/jqph.v4i1.168>
9. Ali Kareem ZS, Mohamed HA. Effectiveness of Teaching Program on Knowledge Regarding the Breast-Feeding Problems among Postnatal Mothers. *Minia Scientific Nursing Journal*. 2018 Dec 30;4(1):1-0. <https://doi.org/10.21608/MSNJ.2018.187741>
10. Sulaeman ES, Yunita FA, Yuneta HAEN, Khotijah, Wijayanti YRAR, Setyawan H, et al. The effect of oxytocin massage on the postpartum mother on breastmilk production in Surakarta Indonesia. *Int Conf Heal Well-Being*. 2016;279–88. <http://hdl.handle.net/11617/7413>
11. Yuniarti Y. Metode Breast Care Meningkatkan Volume Asi Pada Ibu Nifas. *Media Informasi*. 2018 Dec 31;14(2):171-4. <https://doi.org/10.37160/bmi.v14i2.180>
12. Nabunya P, Mubeezi R, Awor P. Prevalence of exclusive breastfeeding among mothers in the informal sector, Kampala Uganda. *PLoS One* [Internet]. 2020;15(9 September):1–14. <http://dx.doi.org/10.1371/journal.pone.0239062>
13. Setyaningrum R, Rofi'i A, Putri AO. Correlation Between Knowledge and Attitude of Working Mother with Exclusive Breastfeeding Practice In Loktabat Utara Village, South Kalimantan. *Adv Res J Multidiscip Discov* [Internet]. 2017;9(2):20–3. Available from: <http://www.journalresearchijf.com>
14. Wulandari RA, R. Azizah, Juliana Binti Jalaludin, Lilis Sulistyorini, Khuliyah Candraning Diyanah. Meta-Analysis Factor of Hand Washing Habits and Exclusive Breastfeeding with Diarrhea Between 2017-2021 in Indonesia. *J Kesehat Lingkung*. 2022;14(3):209–17. <https://doi.org/10.20473/jkl.v14i3.2022.209-217>
15. Widia L, Meihartati T. Oxytocin massage enhanced breast milk production in post-partum women. *Maj Obstet Ginekol*. 2018;25(2):63. <https://doi.org/10.20473/mog.V25I22017.63-65>
16. Winberg J. Oxytocin and Prolactin Levels in Breast - Feeding Women. Correlation with milk Yield and Duration of Breast - feeding. *Acta Obstet Gynecol Scand*. 1990;69(4):301–6. <https://doi.org/10.3109/00016349009036151>
17. Gianni ML, Bettinelli ME, Manfra P, Sorrentino G, Bezze E, Plevani L, et al. Breastfeeding difficulties and risk for early breastfeeding cessation. *Nutrients*. 2019 Sep 20;11(10):2266 <https://doi.org/10.3390/nu11102266>