e-ISSN: 2987-0836 DOI: https://doi.org/10.59585/ijhs

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

The Importance Of Knowledge Of Post Partum Mothers In Getting Optimal Breast Milk In Makassar City Maternity Hospital, South Sulawesi

Rika Asmirah[1], Nur Rahma Srifitayani[2], Mudrika[3], Herlina[4], Sri Rahma Haruna[5], Risna Yunita Asmin[6], Rohmi[7]

[1] Midwifery Study Program, Megarezky University Makassar, Indonesia
[2] Nutrition Study Program, Megarezky University Makassar, Indonesia
[3] Nursing Profession Study Program, Yapika Health College Makassar, Indonesia
[4.5] Nursing Study Program, Megarezky University Makassar, Indonesia
[6] Midwifery Study Program, Islamic University of Makassar, Indonesia
[7] Midwifery Study Program, Mambaul Ulum Health College, Surakarta, Indonesia

ABSTRACT

Oxytocin massage is also a solution to overcome irregular breast milk production. This massage is performed along the spine to stimulate the hormones prolactin and oxytocin after giving birth. The purpose of this study was to determine the role, benefits and functions of the combination of breast care and oxytocin massage on breast milk production in postpartum mothers and to facilitate breast milk production. The research method was quasi-experimental, with a posttest-only control design. Using consecutive sampling techniques. Interventions were given from the first day to the third day postpartum, then observations were carried out. Data normality test using the Shapiro-Wilk test, data analysis using the independent t-test. The research results obtained a significance value with the average number of the combination group and the control group. The conclusion of this study is that the combination of breast care and oxytocin massage is effective in breast milk production in postpartum mothers. When massaging the spine, it can cause a neurogenic reflex that speeds up the work of the parasympathetic nerves to convey commands to the back of the brain. As a result of the stimulatory signal, the potential action process of oxytocin is released into the systemic blood from the posterior pituitary. In the bloodstream, oxytocin is delivered to the myoepithelial cells of the alveoli and uterus so that oxytocin will stimulate these cells which cause the alveolar sacs to be compressed and the ducts to shorten and widen.

Keyword : The Importance Of Knowledge, Post-Birth, Optimal Breast Milk, South Sulawesi Maternity Hospital

Correspondent : Rika Asmirah

e-ISSN: 2987-0836 DOI: https://doi.org/10.59585/ijhs

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

E-mail : rikaasmirajohannir@gmail.com

1. Introduction

The World Health Organization (WHO) concluded that around 35% of mothers stop exclusively breastfeeding several weeks postpartum because they think their breast milk production is insufficient and their babies are dissatisfied.

Postpartum or postpartum period is the period after childbirth, calculated from the completion of childbirth until the reproductive organs return to their pre-pregnancy state and the duration of the postpartum period is approximately 6 weeks (Rahayu, 2016).

According to the Indonesian Ministry of Health in Padila (2014), postpartum is the period after childbirth, calculated from the end of childbirth until the reproductive organs return to their pre-pregnancy condition and the duration of the postpartum period is approximately 6 weeks.

The postpartum period (puerperium) is a period of recovery, starting from the completion of childbirth until the reproductive organs return to their pre-pregnancy state. The duration of the postpartum period is 6-8 weeks (Amru, 2012).

According to Walyani & Proastuti (2015), Breasts are a complement to the female reproductive organs and during lactation will produce milk. Breasts are located in the superficial fascia in the pectoral region between the sternum and axilla and extend from the second or third rib to the sixth or seventh rib.

The breast shape is convex forward with the nipple in the middle, consisting of skin, erectile tissue and colored. The breast is 10-12 cm in diameter, and weighs ± 200 grams (when not pregnant/breastfeeding). During pregnancy, the breasts enlarge to reach 600 grams and during breastfeeding their weight can reach 800 grams (Walyani & Purwoastuti, 2015).

e-ISSN: 2987-0836 DOI: https://doi.org/10.59585/ijhs

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

According to (Kumalasari, 2015) benefit maintenance breast (*breast care*) including:

a. Look after breast hygiene Mother so that the baby can breastfeed easily.
b. Flex And strengthen nipple milk so that baby easy breastfeeding.
c. Reduce risk wound moment baby breastfeeding.
d. Can stimulate gland water milk so that production breast milk become smooth.
e. Preparation psychic Mother breast-feed And guard breast shape.
f. Prevent blockage on breast.

According to (Kumalasari, 2015) consequence Which arise If No Performing breast care *includes* :

1) Child difficulty breastfeeding because the breasts that dirty.
2) Nipples milk sink so baby difficulty breastfeeding.
3) Breast milk will be out for a long time so that impact on the baby.
4) Breast milk production is limited due to lack of stimulation through massage and kneading.
5) There is swelling, inflammation of the breasts and breast skin, especially the nipples, which are easily chafed.

In this study, researchers conducted interventions in accordance with therapy for breast milk production and release, including care and massage. Combining breast care and oxytocin massage is expected to affect breast milk production.

2. Research Methods

The type of quasi-experimental research with a posttest-only control design approach. The experimental group received a combination of breast care and oxytocin massage and the control group was only given breast care intervention, then both groups were followed by observation, then comparing the observation results from the experimental group with the control group. Data collection was carried out directly by providing interventions in the form of breast care and oxytocin massage after 2 hours postpartum and observations were carried out every day for 3 days according to the period of colostrum release.

e-ISSN: 2987-0836 DOI: https://doi.org/10.59585/ijhs

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

3. Results and Discussion

a. Results

Table 1.
Distribution Characteristics Respondents Combination of Care and Groups Control in Maternity Hospital

	Group			
Characteristics	Combination n=16		Control n=16	
Age (yr)				
<20	1	6.3%	2	12.5%
20-35	12	75%	13	81.3%
>35	3	18.8%	1	6.3%
Parity				
Primipara	5	31.3%	5	31.3%
Multipara	9	56.3%	9	56.3%
Grand multipara	2	12.5%	2	12.5%

Table 1 combination group of breast care and oxytocin massage 75% or 12 of 16 respondents were in the age range of 20-35 years, and 13 respondents in the control group (81.3%). Multipara characteristics of 9 respondents (56.3 %) in both groups.

Table 2.
Analysis Test Independent t-test On Effectiveness Combination Maintenance Breast And Massage Oxytocin To Production breast milk On MotherPostpartum in Maternity Hospital

Production breast milk	n	Mean	Different average	ρ- value
Combination*	16	4.49	1.26	0.004
Control**	16	3.23		

Table 2 shows the average breast milk production in the combination group was 4.49 cc, and in the control group was 3.23 cc. The difference in the average amount of breast milk production in the two groups was 1.26 cc, with a ρ-value = 0.004 (<0.05).

e-ISSN: 2987-0836 DOI: https://doi.org/10.59585/ijhs

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

b. Discussion

The results of the descriptive analysis showed that the average difference in the amount of breast milk production during the 3 days of intervention in the combination group was 71.87 cc and the control group was 51.77 cc, so that there was an average difference of 20.1 cc greater than in the control group, and most respondents had breast milk production of ≥ 2 cc on the first day.

Based on the results of the independent t-test at a 95% confidence level, a ρ-value of 0.004 (<0.05) was obtained, so it can be seen that the combination of breast care and oxytocin massage is more effective in producing 1.26 cc more breast milk than in mothers who only receive breast care.

In line with previous studies that measured breast milk production in post-cesarean mothers on day 5 who were given a combination of oxytocin massage and breast care intervention with the indicator of infant urination frequency, it was found that 91.43% or 32 infants had a frequency of urination ≥ 6 times with a ρ-value of 0.001 so that it can be stated that the combination of breast care and oxytocin massage intervention is effective in increasing breast milk production. This study is not relevant to previous studies that showed that there was no difference in breast milk production in postpartum mothers based on the type of delivery.

Likewise, disturbed psychological factors can increase adrenaline hormones, thereby inhibiting the release of oxytocin hormones which will affect breast milk production. Disturbed psychological conditions caused by discomfort or stress experienced by breastfeeding mothers can automatically affect the production of oxytocin hormones which play a role in producing quality breast milk, this is because the breast milk produced by the mother cannot be separated from the harmony of mind and soul.

Another study showed the relevance that the average breast milk secretion between pretest and post-test in the experimental group was 203.82 cc and the control group was 54.9 cc with a ρ-value of 0.000 (<0.05) so that it can be stated that there is a significant increase from the combination of breast care and oxytocin massage in

e-ISSN: 2987-0836 DOI: https://doi.org/10.59585/ijhs

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

increasing breast milk secretion in postpartum mothers in the working area of the Batealit Jepara Health Center.

Oxytocin massage is also a solution to overcome irregular breast milk production. This massage is performed along the spine (vertebrae) to the V and VI costae bones to stimulate the hormones prolactin and oxytocin after giving birth. One of the hormones that plays a role in the production of breast milk is the hormone oxytocin, so when there is stimulation of the hormone oxytocin, the alveoli cells in the mammary glands contract. This contraction causes breast milk to come out and then flow in the breast ducts so that drops of milk come out of the nipples.

Oxytocin stimulation massage for breastfeeding mothers functions to stimulate the oxytocin hormone as a love hormone in order to facilitate breast milk and increase the comfort of the mother, so that it will provide comfort to the breastfed baby. Oxytocin is produced by the posterior pituitary gland (neurohypophysis). When the baby sucks the areola, it will send stimulation to the neurohypophysis to produce and release oxytocin intermittently. Oxytocin will enter the mother's bloodstream and stimulate the muscle cells around the alveoli to contract, causing the breast milk that has accumulated in it to flow into the ducts.

In addition to oxytocin massage, there is also a very important breast care method to facilitate breast milk production by stimulating the mammary glands through massage. The results of previous studies showed that there was a relationship between breast care and smooth breast milk excretion with a ρ-value of 0.018 (<0.05) and the Odds Ratio (OR) value showed a result of 1.615 which means that breast care can affect smooth breast milk excretion 1.6 times greater than those who were not given breast care.

Previous studies have shown that the average volume of breast milk before breast care is 4.5 cc while the average after breast care is 6.44 cc with a ρ-value of 0.021 which means that there is a positive effect between before and after the intervention. The breast care intervention is carried out by stimulating or massaging the breasts, cleaning the nipples and compressing the breasts using warm and cold

e-ISSN: 2987-0836 DOI: https://doi.org/10.59585/ijhs

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

water alternately which can affect the pituitary to release the hormones progesterone and estrogen so that it produces the hormone oxytocin.

Breast care involves first providing stimulation to the smooth muscles of the breast alveoli to stimulate the hormone oxytocin which causes the myoepithelial cells around the alveoli to contract and push breast milk into the ampulla vessels.

Breast care in the first days of postpartum can smooth blood flow to the breasts, then reduce intraductal pressure caused by breast milk that collects in the lactiferous ducts so that this stimulation is continued to the hypothalamus through the spinal cord and mesencephalon. The hypothalamus will suppress the release of factors that trigger prolactin secretion which will stimulate the anterior pituitary to produce prolactin. Furthermore, the hormone prolactin will stimulate alveolar cells to make milk.

So based on the explanation, it can be concluded that if the two methods are combined, it will be more effective for the smooth production and release of breast milk. This is because the combination or combination of the two methods, namely breast massage by stimulating the breast muscles and massage in the mother's back area with the aim of stimulating the milk glands so that they can produce milk and trigger the oxytocin hormone or let down reflex and provide comfort and create a sense of relaxation in the mother through the endorphin hormone which is secreted because of the comfort and relaxation experienced during the massage and the support given. The thoughts, feelings and sensations experienced by a mother will greatly affect the oxytocin reflex as a love hormone. This is what causes an increase in breast milk production and release.

Based on previous studies, there is evidence that shows that there are other massage methods that can also be combined and have the potential to increase and smooth breast milk production. Therefore, it is also recommended to provide a combination of several other massage methods such as neck massage, endorphin massage or marmet massage to increase the smoothness of breast milk production in postpartum mothers.

e-ISSN: 2987-0836 DOI: https://doi.org/10.59585/ijhs

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

Breast milk production and release on the first day of birth are very beneficial for the mother and baby, because this can increase the success of exclusive breastfeeding in babies because babies do not need to get breast milk substitutes on the grounds that there is no breast milk coming out during the first days of birth, so that mothers are afraid that their babies will starve. Whereas as previously explained, the amount of breast milk production in the first days is still around 2-20 cc. In addition, this is also very beneficial for mothers because oxytocin is needed by mothers for the uterine involution process and to prevent bleeding in the mother.

The results of this study can be applied in all health facilities, especially Health Clinics and Community Health Centers, namely by providing a combination of breast care and oxytocin massage to postpartum mothers to help increase breast milk production. It is highly recommended to provide information about breast care and oxytocin massage to mothers since pregnancy and to carry out breast care since pregnancy, namely in the third trimester. This is done to prepare the breasts and ensure smooth breast milk flow during breastfeeding so that mothers can carry out breast care independently with support from their husbands and families.

4. Conclusion

Based on the results of this study, it can be concluded that the combination of breast care and oxytocin massage is effective in producing greater breast milk in postpartum mothers compared to breast care alone. Faster breast milk production will provide the opportunity for mothers to breastfeed their babies exclusively and reduce the risk of failure to provide exclusive breastfeeding to babies, and the amount of breast milk that is seen clearly can eliminate the perception of insufficient breast milk that has been disturbing the psyche of breastfeeding mothers. The importance of breast milk for babies means that babies should get breast milk as soon as possible after birth until the age of 6 months.

5. Compliance with ethical standards

Acknowledgements

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

Researchers would like to thank the leadership of the maternity hospital and their staff, as well as all parties who have helped carry out this research. Therefore, researchers hope that there will be more services that can help people become healthier and better.

Disclosure of conflict of interest

This research collaboration is a positive thing for all researchers so that conflicts, problems and others are absolutely no problem for all writers.

Statement of informed consent

Every action we take as authors is a mutual agreement or consent.

Reference

1. Asmirah, R., Ningsih, ES, Delimayani, D., Sembiring, EA br., Anggeraeni, A., & Mustamin, R. (2024). Socialization and Health Education on Good and Correct Hand Washing Methods for Pregnant Women. Sahabat Sosial: Journal of Community Service, 3(1), 78–85. https://doi.org/10.59585/sosisabdimas.v3i1.519
2. Ali Imran; Dr. A. Nursinah, Verawati, Rusnita. HEALTH COMMUNICATION TEXTBOOK (Key to Success in Hospital Administration). ISBN: 978623-10-0088-0. https://agdosi.com/2024/04/04/buku-ajar-komunikasi-kesehatan-kunci-sukses-administrasi-rumah-sakit/
3. Bara, FT, Rahmat, RA, Herlina, H., & Basir, AA (2024). Health Education Using Breast Self-Examination in Preventing Ca Mammae. Sahabat Sosial: Journal of Community Service, 3(1), 42–50. https://doi.org/10.59585/sosisabdimas.v3i1.513
4. Kusumawaty, I., Yunike, Y., & Astuti, RD (2023). Enhancing the Achievement of Community Mental Health Through Health Cadre Development in Talang Buluh Village. Sahabat Sosial: Journal of Community Service, 2(1), 28–39. https://doi.org/10.59585/sosisabdimas.v2i1.212
5. Ministry of Health RI. 2017. Profile Health Indonesia Year 2016. Jakarta: Ministry Health Republic Indonesia.
6. Wound Care And Treatment For Health. ISBN No.: 978-623-09-8231-6. https://agdosi.com/2024/01/10/wound-care-and-treatment-for-health/
7. Fikawati, S., Syafiq, A., And Karima, K. 2015. Nutrition Mother And Baby. Eagle Press: Jakarta.
8. Hamdana. 2010. Comparison of Breast Milk Production in Breastfeeding Mothers Between Spontaneous Delivery and Cesarean Section Delivery at RSIA Pertiwi Makassar. Unpublished. Makassar: Department of Nursing, Alauddin State University, Makassar.
9. Hanifah, AN, Rahmadhani, SP, Parwati, D., Saputra, MKF, Asmin, RY, Talib, KU, & Wahyuni, S. (2024). Description of Asphyxia Incidents with Umbilical Cord Entanglement in Newborns in the Work Area of the Health Center in Bantaeng.

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

International Journal of Health Sciences, 2(3), 991–999. https://doi.org/10.59585/ijhs.v2i3.447

10. Hesti, K. Y., Pramono, N., Revelation, S., Widyawati, MN, and Santoso, B. 2017. Effect of Combination of Breast Care and Oxytocin Massage on Breast Milk Secretion in Postpartum Mothers. Belitung Nursing Journal, Vol.3 No.6, November – December 2017: 784-790.
11. Irianto, K. 2014. Balanced Nutrition in Reproductive Health. Alfabeta: Bandung.
12. Julita, E., Rahagia, R., Fajar Cahya, MR, Resti Wijayanti, FE, Malaha, N., Rasyid, D., & Pannyiwi, R. (2023). Therapeutic Communication of Nurses in the Surgical Treatment Room of RSUD Arifin Nu'mang. International Journal of Health Sciences, 1(1), 39–47. https://doi.org/10.59585/ijhs.v1i1.51
13. Maryunani, A. 2015. Initiation Breastfeeding Early, breast milk Exclusive And ManagementLactation.TEAM: Jakarta.
14. Masdarwati, M., Kadir, E., Serli, S., Ruben, SD, Pannyiwi, R., & Rante, A. (2023). Counseling on Complementary Foods for Breast Milk with Toddler Nutritional Status. Sahabat Sosial: Journal of Community Service, 1(2), 58–60. https://doi.org/10.59585/sosisabdimas.v1i2.28
15. Meilirianta, Istianah, and Yuliani, A. 2014. Influence Maintenance Breast to Excretion of breast milk (ASI) in mothers Postpartum in House Giving birth Fragrant Sustainable Ward Main Subdistrict Cimahi South Year 2014. Journal Rajawali Health, Vol. 4 No. 7, October 2014: 36-43.
16. Love, S. 2016. Effectiveness Massage Oxytocin And Maintenance Breast To Smoothness Production breast milk on Mrs. Post Sectio Caesarea at RSAD Hero Devotion Mataram year 2015. Media Build Scientific, Vol. 10 No. 3, March 2016: 48-52.
17. Nilamsari, MA, Wagiyo and Elisa. 2014. The Effect of Breast Care on the Smoothness of Breast Milk Excretion in Postpartum Mothers at Mardi Rahayu Maternity House, Semarang. Journal of Nursing and Midwifery (JIKK), 2014: 1-7.
18. Rahayuningsih, T., Mudigdo, A., and Murti, B. 2016. Effect of Breast Care and Oxytocin Massage on Breast Milk Production: a study in Sukoharjo Provincial Hospital. Journal of Maternal and Child Health, Vol. 1 No. 2, 2016: 101-109.
19. Ramli, R., Srifitayani, NR, Kristina, Y., Reffita, LI, Rohemah, R., Afrika, E., & Hikmah, M. (2024). Description of Mother's Behavior and Nutritional Status of Toddlers After the Nutrition Recovery Program in Makassar City, South Sulawesi. International Journal of Health Sciences, 2(3), 883–896. https://doi.org/10.59585/ijhs.v2i3.433
20. Retnowati, Y., and Ramadhani, CS 2016. Differences in the Duration of Breast Milk Release in Postpartum Mothers Who Underwent Breast Care with Oxytocin Massage. 2- Trik: Tunas-Tunas Kesehatan Research, Vol. 6 No. 4, November 2016: 181-186.
21. Wijayanti, L.A., Lestaluhu, V., Saputra, MKF, Masithah, S., Pannyiwi, R., & Malaha, N. (2024). Readiness for Accreditation of the Administration and Management Working Group at the Basaan Community Health Center Southeast Minahasa Regency. International Journal of Health Sciences, 2(1), 48–64. https://doi.org/10.59585/ijhs.v2i1.239

e-ISSN: 2987-0836 DOI: https://doi.org/10.59585/ijhs

Publish: Association of Indonesian Teachers and Lecturers
International Journal of Health Sciences (IJHS)
Journal Homepage: https://jurnal.agdosi.com/index.php/IJHS/index
Volume 2 | Number 4 | December 2024 |

22. Wulan, S., and Gurusinga, R. 2017. The Effect of Breast Care on Breast Milk Volume in Postpartum Mothers at Deli Serdang Regional Hospital, North Sumatra in 2012. Journal of Midwifery, Hope of Mothers, Pekalongan, Vol. 1 No. 5.
23. Wijayanti, T., and Setiyaningsih, A. 2017. Differences in Oxytocin Massage and Breast Care Methods in Increasing Breast Milk Production in Postpartum Mothers. Journal of Health Communication, Vol. 3 No. 2, 2017:1-12.