



## The Relationship Between Breast Care and Breast Milk Production in Postpartum Mothers at PMB Khoiruzan Talang Padang Tanggamus in 2022

Hera Diantina<sup>1</sup>, Farida M Simanjuntak<sup>2\*</sup>, Ani Anggraini<sup>3</sup>, Vermona Marbun<sup>4</sup>, Riris Octryna Silitonga<sup>5</sup>

<sup>1,2,3,4,5,6</sup>Departement of Midwifery and Midwifery Profession STIKes Medistra Indonesia,

\*Correspondence: faridams81@gmail.com, 087777268881

### Abstract

Background: The low rate of exclusive breastfeeding will impact the quality and survival of future generations. Globally, in 2019, 144 million children under five were estimated to experience stunting. Breast care is the practice of taking care of the breasts to ensure smooth breastfeeding and to prevent common issues that arise during nursing. Research Objective: To determine the relationship between breast care and breast milk production in postpartum mothers at PMB Khoiruzan Talang Padang Tanggamus in 2022. Research Method: This study used a quantitative research design. The population in this study consisted of 30 postpartum and breastfeeding mothers at PMB Khoiruzan Talang Padang Tanggamus in 2022. The sampling technique used was total sampling, so the total number of samples in this study was 30 respondents. Statistical testing used the chi-square test. Research Results: Univariate analysis showed that 26 respondents (86.7%) practiced breast care, and 21 respondents (70.0%) had adequate breast milk production. Bivariate analysis revealed a relationship between breast care and milk production, with a p-value of 0.005. Conclusion: There is a relationship between breast care and breast milk production.

**Keywords: Breast care, Breastfeeding mothers, Breast milk production**

### INTRODUCTION

One of the nutritional problems that often occurs in Indonesia today is a lack of nutritional intake in babies which causes babies to experience nutritional disorders. Most nutritional disorders in babies are caused by breast milk (ASI), which is often replaced by formula milk which is given and does not meet the needs of the baby's body (1).

One of the reasons why the implementation of exclusive breastfeeding in Indonesia has not been successful is the factor of working mothers (although that is not the only factor causing failure). For mothers who are actively working, efforts to provide exclusive breastfeeding often experience obstacles due to the short period of maternity and childbirth leave, resulting in before the exclusive breastfeeding period ends that they have to return to their routine at work, this causes the baby not to receive exclusive breast milk. Apart from that, many working mothers believe that their breast milk cannot meet the baby's needs when the mother has to return to work, so mothers

prefer to give their babies additional breast milk in the form of formula milk (2).

According to WHO in Kurnia Sari's research (2022), the low level of exclusive breastfeeding will have an impact on the quality and vitality of the next generation. Globally in 2019, 144 million children under five are estimated to be stunted, 47 million are estimated to be underweight and another 38.3 million are overweight or obese (WHO, 2020). According to 2017 Indonesian health profile data and information, exclusive breastfeeding coverage for babies up to 6 months of age was lowest in North Sumatra at 12.4% & Gorontalo at 12.5%, while the highest was in Yogyakarta at 55.4% (3).

Based on recording and reporting from health facilities in Lampung Province, it appears that the coverage of exclusive breastfeeding in 2011 was 29.24% with a target figure of 60%, while in 2012 the coverage figure was recorded at 30.05% with a target of 80%. It appears that exclusive breastfeeding coverage in Lampung Province has not reached the target set by the province (Lampung Provincial Health Office, 2013). Tanggamus Regency oversees several

sub-districts, one of which is Air Naningan District (4).

Breast milk is very important for babies and mothers, based on research by praasetyono (2009), exclusive breastfeeding is a protective factor in the incidence of allergic diseases in children (5). A good breastfeeding pattern will reduce health complaints in postpartum mothers. If the baby is not given exclusive breast milk, it will have a bad impact on the baby. The impact of having a risk of death due to diarrhea is 3.94 times greater than that of babies who receive exclusive breast milk (6).

Babies who are given breast milk will be healthier than babies who are given formula milk. Giving breast milk will be healthier than babies who are given formula milk. Giving formula milk to babies can increase the risk of urinary tract, respiratory tract and ear infections. Babies also experience diarrhea, colic, food allergies, asthma, diabetes and chronic digestive tract diseases (7).

Breast care is care carried out on the breasts so that they can breastfeed smoothly and prevent problems that often arise during breastfeeding. The benefits of breast care during the postpartum period include; maintaining breast hygiene, especially nipple cleanliness, flexing and strengthening the nipples making it easier for the baby to breastfeed, stimulating the milk glands so that breast milk production is plentiful and smooth, detecting breast abnormalities early and making efforts to overcome them, and preparing mentally ( psychological) mothers to breastfeed (8).

Several studies by Colin and Scott (2002) explain that the main factor causing low coverage of exclusive breastfeeding is insufficient breast milk production. The smooth production of breast milk is influenced by many factors such as the baby's weight at birth, gestational age at birth, maternal age and parity, stress and acute illness, IMD, the presence of smokers, alcohol consumption, breast care, use of contraceptives, and nutritional status. The smooth availability of breast milk to breastfeeding mothers will help ensure the success of exclusive breastfeeding for 6 months (9).

Based on a preliminary study through interviews conducted by researchers on 10-11 January 2017 at the Aminah Amin Clinic in Samarinda on 6 postpartum mothers, the results obtained were that 5 of the

postpartum mothers said they had never had breast care during pregnancy, and were currently breastfed. Only a little came out and 1 person said their breast milk was smooth because they had breast care done at home.

Based on the data above, it is suspected that the lack of smooth breastfeeding is influenced by the mother not taking care of her breasts during pregnancy, which causes her milk production to not be smooth, therefore researchers are interested in conducting research with the title The Relationship between Breast Care and Breast Milk Production in breastfeeding mothers in the PMB Khoiruzan work area. Talang Padang Tanggamu.

## METHODOLOGY

The research design used in this study is a quantitative research type, with an analytic design using a survey method through a cross-sectional approach. The population studied in this research consists of all postpartum and breastfeeding mothers, totaling 30 individuals. The sampling technique used was total sampling, so the sample size in this study was 30 participants.

## RESULT

### Univariate Analysis

**Table 1.1 Frequency distribution of breast care in postpartum mothers at PMB Khoiruzan Talang Padang in 2022**

Breast Care	Total	Percentage (%)
Not practicing	4	13,3
Practicing	26	86,7
Total	30	100

Source:Hera diantina worksheet, 2022

In table 1.1 above, the frequency distribution of breast milk production, namely from 30 respondents, found that at most 26 respondents (86.7%) did not perform breast care, and 4 respondents (13.3%) did breast care.

**Table 1.2 Frequency distribution of breast milk production in postpartum mothers at PMB Khoiruzan Talang Padang in 2022**

Breast Care	Total	Percentage (%)
Deficient	9	30,0
Sufficient	21	70,0
Total	30	100

Source:Hera diantina worksheet, 2022

In table 1.2 above, the frequency distribution of breast milk production, namely from 30 respondents, found that at most 21 respondents (70.0%) had sufficient breast milk production, and 9 respondents (30.0%) had insufficient breast milk production.

**Bivariate Analysis**

**Table 1.3 The relationship between breast care and breast milk production in postpartum mothers at PMB Khoiruzan Talang Padang in 2022**

Perawatan payudara	Produksi ASI				Jumlah		P Value	OR
	Kurang		Cukup		N	%		
	N	%	N	%				
Tidak melakukan	4	100,0	0	0	4	100	0,005	5,200
Melakukan	5	19,2	21	80,8	26	100		
Jumlah	9	30,0	21	70,0	30	100		

**DISCUSSION**

**1. Frequency distribution of breast care among postpartum mothers at PMB Khoiruzan Talang Padang in 2022**

From the research results, it was found that the frequency distribution of breast care was that out of 30 respondents, it was found that at most 26 respondents (86.7%) were those who did breast care, and 4 respondents (13.3%) who did not do breast care.

One of the efforts made to facilitate the release of breast milk is breast care. Breast care is an act of breast care either by the post partum mother or assisted by other people which is carried out starting from the first or second day after giving birth by keeping the breasts clean and well cared for (10). Breast care is useful in influencing the pituitary to release the hormones prolactin and oxytocin, the hormone prolactin influences the amount of breast milk produced and the hormone influences the correct and regular release of breast milk, making it easier for your little one to consume breast milk (11).

Breast care should be done both during pregnancy and after giving birth. Breast care should be started as early as possible 1-2 days after the birth of the baby and done twice a day before bathing, so in a week breast care can be done 14 times. Because the more frequently you do breast care, the more breast milk production will increase (12). Research conducted by (Zumaro, 2023) on the Effect of Breast Care on Breast Milk Production for Postpartum Mothers shows that the majority of respondents did not carry out treatment, namely 18 respondents (60.0%). By breast feeding correctly and regularly it will also make it easier for the baby to suckle breast milk. This breast care will also stimulate the release of breast milk and reduce the possibility of injury during breastfeeding. Wrong breastfeeding techniques will affect

the shape of the breasts (13). Physiologically, breast care, stimulation of the breasts will cause the pituitary to release more of the hormones progesterone and estrogen, by massaging it will also stimulate the mammary glands to release the hormone oxytocin (14)

From the research results, it can be assumed that breast care is one way to increase breast milk production. The highest breast milk production is produced after breast care, namely 2.0 ml. This means that the more frequently and regularly a breastfeeding mother cares for her breasts, the more breast milk production will increase. In the breast care process, several techniques are used to relax the mother, so that the muscles in the breasts are not tense and breast milk production can be increased, according to research.

**2. Frequency distribution of breast milk production among postpartum mothers at PMB Khoiruzan Talang Padang in 2022**

From the research results, it was found that the frequency distribution of breast milk production, namely from 30 respondents, found that at most 21 respondents (70.0%) had sufficient breast milk production, and 9 respondents (30.0%) had insufficient breast milk production. Breast milk is very important for babies and mothers, based on research by Wardhani (2013), exclusive breastfeeding is a protective factor in the incidence of allergic diseases in children.

According to Jayanti dan Devi (2022), a good breastfeeding pattern will reduce health complaints in postpartum mothers. The lactation or breastfeeding process is the process of producing breast milk which involves the hormone prolactin and the hormone oxytocin. The prolactin hormone during pregnancy will increase, but breast milk will not come out because it is still hampered by the high estrogen hormone. And at the time of birth, the hormones estrogen and progesterone will decrease and the hormone prolactin will be more dominant, resulting in breast milk secretion (15).

Research conducted by Fridalni (2020) found that out of 161 respondents, 108 (67.1%) respondents had insufficient breast milk production. Breast care is useful in stimulating the breasts and influencing the pituitary to release the hormones prolactin and oxytocin. Breast care should begin during pregnancy and during breastfeeding. For mothers who have problems with nipple abnormalities, for example inverted or flat nipples, treatment is carried out at 3 months of pregnancy, whereas if there are no problems treatment is carried out from 6 months of pregnancy until breastfeeding (16).

Based on the research that has been done, the production of breast milk produced by respondents who do breast care is more than those who do not do breast care. Respondents who do breast care and produce enough breast milk are also helped by eating a lot of foods such as katuk leaf vegetables and moringa leaf vegetables.

### **3. The relationship between breast care and breast milk production in postpartum mothers at PMB KHoirusan Talang Padang in 2022**

From the research results, it was found that a total of 30 respondents, 26 respondents who performed breast care, 21 respondents (80.8%) of whom had sufficient breast milk production, and 5 respondents (19.2%) who underwent breast care had insufficient breast milk. Meanwhile, the 4 respondents who did not perform breast care all had insufficient breast milk production.

The results of the chi-square test showed a p-value of 0.005. The determined p-value is 0.05, if the p-value is <0.05, then there is a relationship between the dependent and independent variables, but if the p-value is > 0.05, then there is no relationship between the dependent and independent variables. This means that there is a relationship between breast care and breast milk production in postpartum mothers. And the OR value obtained is 5.200, meaning that breast care has a 5 times chance of affecting breast milk production.

Breast milk is the most important food and nutrition to give to babies. Breast milk can increase the baby's immune system because it contains antibodies. The benefits of breast milk are not only for the baby but also for the mother. Therefore, smooth breast milk production is very important. Several factors that cause breast milk

production to not run smoothly are the shape and condition of the mother's nipples which are less prominent so that the baby has difficulty sucking, the mother feels anxious and stressed, and the absence of family support, especially husband's support, plays an important role (17)

Research conducted by (Febriyanti, 2020) on the relationship between breast care and breast milk production in postpartum mothers at the Sibuhuan Community Health Center in 2020. The results obtained were a sampling technique using nonprobability sampling, namely accidental sampling. The research population was all postpartum mothers in the Sibuhuan health center working area, namely 40 respondents. Data was collected through a questionnaire with data analysis using the Chi-Square test. The results of the Chi-Square test showed a p-value = 0.001 < 0.05 (18)

Other factors that influence the smooth production of breast milk are the mother's lack of knowledge (R. The process of forming breast milk tends to involve several hormones including Progesterone, Estrogen, Human Placental Lactogen (HPL), Prolactin, and Oxytocin (19). The hormone prolactin during pregnancy increases, but breast milk does not come out because it is inhibited by the hormone estrogen which is still high. The hormone prolactin during pregnancy only plays a role in the formation of colostrum but is still limited. After giving birth, the production of the hormones Progesterone, Estrogen, Human Placental Lactogen will decrease while the hormone prolactin will increase resulting in the formation and secretion of breast milk (20)

Breast care is an action to care for the breasts. Treatment is mainly carried out during the postpartum period with the aim of facilitating the release of breast milk (21). Breast care through massage will stimulate the breast milk glands and the production of the hormones Prolactin and Oxytocin. Movement during breast care will stimulate nerve cells in the breast. This stimulus will be conveyed to the pituitary gland through the spinal column. The pituitary gland in the brain will respond by releasing the hormones Prolactin and Oxytocin. Breast milk production is influenced by the hormone Prolactin, and the process of producing breast milk is influenced by the hormone Oxytocin (17).

In this study there were 5 respondents who had breast care but their breast milk production was lacking. This can be answered from the results during the interview, namely that the respondents had carried out breast care according to procedures but the food intake that the respondents ate was very poor, this was influenced by regional traditions and culture. around that is by not being allowed to eat foods that are high in protein such as fish, meat, eggs. This means that a mother's lack of food intake can inhibit breast milk production. So it is difficult to produce a lot of breast milk even though the respondent has taken breast care.

### CONCLUSIONS

Carrying out breast care can increase breast milk production, this is proven by 86.7% of respondents having breast care, there are 70.0 respondents who have sufficient breast milk production. Respondents were successful in producing breast milk by performing breast care twice a day.

### REKOMENDATION

Midwives can provide more knowledge about the other benefits of breast care and postpartum mothers can carry out breast care in accordance with recommendations and procedures so that the results obtained are maximum.

### REFERENCES

1. Annisa Nuradhiani. Faktor Risiko Masalah Gizi Kurang pada Balita di Indonesia. *J Ilm Kesehat Masy Dan Sos.* 2023;1(2):17–25.
2. Kahti SA, Lubis DS. Hubungan Pengetahuan, Dukungan Suami dan Status Pekerjaan Dengan Pemberian ASI Eksklusif pada Ibu Memiliki Bayi Usia <6 Bulan di Wilayah Kerja Puskesmas Siak Hulu. *J Kesehat Tambusai.* 2023;4(1):48–57.
3. Kurnia Sari A. Hubungan Usia Ibu Menyusui dengan Pemberian ASI Eksklusif. *MJ (Midwifery Journal).* 2022;2(4):187–90.
4. AV H. 8 Fakultas Kesehatan Universitas Muhammadiyah Pringsewu. *Univ.Muhammadiyah Pringsewu Lampung;* 2021.
5. Handayani R, Qamariah N, Munandar H. Analisis Pengaruh Tingkat Pendidikan Ibu dan Pemberian ASI Eksklusif terhadap Kejadian Stunting pada Balita di Provinsi Kalimantan Tengah. *J Surya Med.* 2022;7(2):1–9.
6. Savita R dkk. *Buku Ajar Nifas Jilid III.* III. Group TM, editor. Vol. III, Mahakarya Cipt Group. Jakarta: PT Mahakarya Citra Utama Group; 2022. 138 p.
7. Arlenti L. Perbandingan Perkembangan Bayi yang Diberi Asi Eksklusif dan Tidak Asi Eksklusif di Wilayah Kerja Puskesmas Pasar Ikan Kota Bengkulu. *J Kebidanan Besurek [Internet].* 2019;4(1):14–21. Available from: <http://ojs.stikessaptabakti.ac.id/index.php/jkb/article/view/134>
8. Yunita Anggriani, Yetty Dwi Fara, Fisca Pratiwi. Perawatan Payudara Pada Ibu Nifas. *J Pengabdian Kpd Masy Ungu( ABDI KE UNGU).* 2023;5(1):79–83.
9. Anggraini dyah setiyarini, Diska Nugraha N. Efektivitas Pijat Oksitosin terhadap Pengeluaran ASI pada Ibu Post Partum. *Prof Heal J.* 2023;4(2):268–72.
10. Rati Pratama E dkk. Perawatan Payudara (Breast Care) Di Ruang Rawat Kebidanan Rumah Sakit Islam Yarsi Bukittinggi. *ALtafani J Abdimas [Internet].* 2023;1(1):12–6. Available from: <https://journal.umnyarsi.ac.id/index.php/ABDIMAS>
11. Utari, Mona Dewi D. Efektivitas Perawatan Payudara Terhadap Kelancaran Produksi ASI pada Ibu Postpartum di Rumah Sakit PMC. *Menara Ilmu.* 2021;15(2):60–6.
12. Kurniati ID, Setiawan R, Rohmani A, Lahdji A, Tajally A, Ratnaningrum K, et al. *Buku Ajar.* 2015;
13. Zumaro EM. Pengetahuan Dan Sikap Perawatan Payudara Dengan Produksi Asi Ibu Nifas. *J Ilm Kebidanan Imelda.* 2023;9(2):120–5.
14. Pramiyana, Ira Martin D. Edukasi Pentingnya Perawatan Payudara (Breast Care) Pada Ibu Nifas Untuk Pemberian Asi Eksklusif Di Polindes Kejayan Pujer. *J Pengabdian Masy Dharma Praja.* 2024;1:2024.
15. Jayanti C, Yulianti D. Coronaphobia dan Kelancaran ASI di Masa Post Partum. 2022. 1–58 p.

16. Fridalni N, Guslinda, Minropa A, Rini Rahmayanti. Hubungan Perawatan Payudara Dengan Produksi Asi Pada Ibu Menyusui Di Kecamatan Padang Timur Kota Padang. *J Kesehat Mercusuar*. 2020;3(2):52–9.
17. Mukarramah S. Pengaruh Perawatan Payudara Terhadap Kelancaran Produksi Asi Pada Ibu Postpartum Di Puskesmas Kassi-Kassi, Makassar. *Media Keperawatan Politek Kesehat Makassar*. 2021;12(1):11.
18. Febriyanthi, Anshari Z. Hubungan Perawatan Payudara Terhadap Produksi Asi Pada Ibu Nifas Di Puskesmas Sibuhuan Tahun 2020. *J Kedokt STM (Sains dan Teknol Med*. 2021;4(2):121–8.
19. ASI Petunjuk untuk Tenaga Kesehatan. Jakarta: EGC; 2021.
20. Prastiyani LMM, Nuryanto N. Hubungan Antara Asupan Protein Dan Kadar Protein Air Susu Ibu. *J Nutr Coll*. 2019;8(4):246–53.
21. Anwar C, Andika F, Rosdiana E. Penyuluhan Kesehatan tentang Perawatan Payudara di Puskesmas Lamteuba Kecamatan Seulimum Kabupaten Aceh Besar. *J Pengabd Masy [Internet]*. 2021;3(1):40–5. Available from: <https://jurnal.uui.ac.id/index.php/jpkmk/article/viewFile/1427/734>