

EFFECTIVENESS OF PROVIDING BREAST CARE EDUCATION ON MOTHER SKILLS IN BREASTFEEDING MOTHERS

Fanesha Ayuni Filiarsari¹, Fidawsyi Nuzula^{2*}, Siswoto Hadi Prayitno³

^{1,2,3} Diploma III Nursing Study Program, Sekolah Tinggi Ilmu Kesehatan Rustida, Banyuwangi, Indonesia

*Correspondence: Fidawsyi Nuzula

Email: nuzulafirdawsyi@gmail.com

ABSTRACT

Breast care is essential for every pregnant mother to ensure smooth breast milk production. With sufficient breast milk production, the baby's nutritional adequacy will be met. Breast care is an important thing to pay attention to in preparation for breastfeeding, because the breast is an important organ that produces breast milk. This research aims to evaluate and determine the extent to which providing breast care education can improve mothers' skills. The quantitative research method uses a pre-experimental method, using a one-group pretest-posttest approach. a population of 500 respondents with a purposive sampling technique was 83 respondents with the criteria of breastfeeding mothers 0-6 months (exclusive breastfeeding) in the work area of the Kalibaru Kulon Community Health Center. Data was collected in the form of breast care SOPs and checklist sheets according to the SOP. The statistical test results of the Wilcoxon test are known as Asymp.sig. (2-tailed) has a value of $.000 < 0.05$, it is concluded that there is an influence of breast care education on maternal skills in breastfeeding mothers in the working area of the Kalibaru Kulon Community Health Center. Providing breast care education regarding maternal skills to breastfeeding mothers is very important to facilitate the release of breast milk, and helps increase blood flow and keep the milk ducts from becoming blocked, helping to keep the breasts and nipples healthy and clean.

Keywords: Education; Breast Care; Skill Mother

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INTRODUCTION

During the lactation period, if breast care is not carried out, the flow of breast milk can be disrupted and not flow smoothly, which can trigger mastitis and also have an impact on the baby, such as the baby's growth and development (Retnaningtyas et al., 2022). According to Amalia (2020) When preparing to give breast milk, breast care must be carried out properly, because the baby's food needs must be met through breast milk from zero days to six months of age (Febriani & Caesarrani, 2023).

The number of babies receiving exclusive breast milk in 2022 will be 61.5%. This success reaches the program target of 45% (Kementrian Kesehatan RI, 2022). Meanwhile, data for East Java province in 2022 is 73.3%. Data on exclusive breastfeeding coverage in Banyuwangi district in 2021 is 90%, in 2022 it is 75% (Dinkes Jatim, 2022).

One of the reasons why someone cannot breastfeed their baby is that the process of producing breast milk is not smooth (Diniyati et al., 2019). The reason mothers in Kolaka district do not breastfeed their babies is that their breast milk production is not coming out or sufficient, as much as 65,7% (Niar et al., 2021). The mother's ignorance about breast care can hinder the breastfeeding process (Kurniawaty et al., 2023). Increasing maternal knowledge and skills through appropriate information and support from health workers can influence maternal behavior in providing breast care (Citrawati et al., 2020). Taking good care of your breasts during breastfeeding helps prevent and manage the risk of breast problems and makes breastfeeding more enjoyable for both mother and baby (Nurahmawati et al., 2021).

One way to improve mothers' skills in maintaining good breast condition when breastfeeding is by providing education about breast care (Sinurat et al., 2021). Breast care helps increase blood flow and keeps the milk ducts from getting blocked, helping to keep the breasts and nipples healthy and clean (Diniyati et al., 2019). A person should prepare themselves from the beginning of pregnancy and after delivery by removing crusts on the nipples to help facilitate breastfeeding (Wati et al., 2022). For women, breast care is performed at least twice a day on the first and second days after giving birth (Ningsih & Arlyn, 2023).

Despite the importance of breast care during the lactation period, previous studies have predominantly focused on the relationship between breast care and breast milk production, maternal knowledge, or breastfeeding success. Research conducted by Diniyati et al. (2019), Citrawati et al. (2020), and Sinurat et al. (2021) demonstrated that educational interventions can improve mothers' knowledge regarding breast care. However, limited studies have specifically evaluated the effectiveness of breast care education in improving practical breast care skills among breastfeeding mothers at the primary healthcare level, particularly in rural community settings. Furthermore, there is still insufficient evidence regarding the implementation and outcomes of breast care education programs in the working area of Kalibaru Kulon Community Health Center, Banyuwangi Regency. This research aims to evaluate and find out the extent to which providing breast care education can improve maternal skills in breastfeeding mothers in the Kalibaru Kulon Community Health Center working area.

The novelty of this study lies in its focus on assessing the improvement of maternal breast care skills after receiving structured breast care education among breastfeeding mothers in the Kalibaru Kulon Community Health Center working area. Unlike previous studies that mainly measured knowledge outcomes, this study emphasizes practical skill acquisition as an important determinant of successful breastfeeding and prevention of breastfeeding-related complications. The findings are expected to provide evidence-based recommendations for community health centers in developing educational strategies to support breastfeeding mothers and improve maternal and infant health outcomes.

METHODS

Study Design

This research is quantitative with a pre-experimental method, using a one group pretest-posttest approach.

Setting

The research location is in the Kalibaru Kulon Community Health Center work area which will be carried out from August to September 2024.

Research Subject

The technique used for sampling was purposive sampling with the criteria of breastfeeding mothers 0-6 months (exclusive breastfeeding). A total of 83 respondents with a population of 500 in the working area of the Kalibaru Kulon Community Health Center. The variables in this

research are breast care education as an independent variable and mother's skills as a dependent variable.

Instruments

The instruments used were only standard operating procedures (SOP) for breast care and a checklist sheet according to standard operating procedures (SOP) to ensure whether the mother had carried out breast care procedures in accordance with standard operating procedures (SOP).

Intervention

Of all respondents, breast care skills were measured twice by adjusting the checklist sheet by standard operational procedures, namely before and after a breast care demonstration by the researcher. All respondents, 83 respondents took a pre-test on breast care knowledge, then took a demonstration of how to care for breasts, and then all respondents took a post-test, where the research was conducted in one group.

Data Analysis

The analysis used was the Wilcoxon test because the data were not normally distributed, with a Kolmogorov-Smirnov test result of 0.000.

Ethical Consideration

This research has passed the ethical feasibility test by Stikes Banyuwangi with number: 259/03/KEPK-STIKESBWI/VII/2024.

RESULTS

1. Respondent characteristics

Table 1. Frequency distribution of respondents according to age groups

Category	Frequency	Percentage
Age		
<20	8	9,6
20-35	52	62,7
>35	23	27,7
Total	83	100
Occupation		
Housewife	75	90,4
Farmer	3	3,6
Self-employed	4	4,8
Labor	1	1,2
Total	83	100
Education		
ES	37	44,6
JHS	21	37,3
SHS	15	18,1
Total	83	100
Number of children		
One	33	39,8
Two	39	47,0
Three	11	13,3
Total	83	100

Based on table 1, the majority of respondents were aged between 20 -35 years, namely 52 (62.7%) respondents with the majority of respondents' occupation being housewives, 75 (90.4%) of the respondents with the most education were elementary school graduates with a total of 37 (44.6%) people and the majority of mothers had two children, 39 (47%).

2. Characteristics of respondents before being given breast care education

Table 2. Results of pre-test and post-test breast care

Category	Frequency	Percentage
<i>Pre-Test</i> breast care		
Less	47	56,6%
Enough	29	34,9%
Good	7	8,7%
Total	83	100%
<i>Post-test</i> breast care		
Less	2	2,4%
Enough	20	24,1%
Good	61	73,5%
Total	83	100%

The results of the analysis in table 2 above show that the pre-test breast care got the most results with poor scores as many as 47 people with (56.6%) while the post-test breast care got the most results with good scores as many as 61 respondents with a percentage of 73.5%.

3. Wilcoxon test analysis

Table 3. Normality test one-sample Kolmogorov-Smirnov test

		Standardized Residual
N		83
Normal parameters ^{a,b}	Mean	.0000000
	Std. deviation	.99388373
Most Extreme Differences	Absolute	.190
	Positive	.190
	Negative	-.166
Test Statistic		.190
Asymp. Sig. (2-tailed)		.000 ^c

Based on the data normality test, the results obtained were a p value <0.005, meaning the data was not normally distributed.

Table 4. Distribution of Wilcoxon test statistics on the effect of breast care education on maternal skills.

		Test Statistics ^a
		<i>Post-test – post-test</i>
Z		-7.827 ^b
Asymp.sig.(2-tailed)		.000

The statistical test results of the Wilcoxon test in table 3 are known to be Asymp.sig. (2-tailed) has a value of 0.000 < 0.05, it is concluded that there is an influence of breast care education on maternal skills in breastfeeding mothers in the Kalibaru Kulon health center working area.

DISCUSSION

As many as 47 respondents (56.6%), mothers' knowledge and skills in breast care were still lacking. Many breastfeeding mothers lack knowledge and skills regarding breast care. Factors that influence knowledge and skills are the lack of clear information regarding breast care (Julianti, 2024), and there are also other factors such as level of education, because they influence the way individuals understand the information and knowledge they receive (Rahayu & Ernawati, 2021). Support from the family is also very influential in motivating mothers to carry out breast care (Ginting & Damanik, 2022), and mothers are less active in

seeking information about the goals and benefits of breast care (Yulita et al., 2021). In research conducted by Citrawati et al., 2020 Age, education level, occupation, information that has never been received, can influence knowledge.

Mothers' skills in caring for their breasts before training tend to be limited, often based on incomplete or inaccurate information, so that many mothers do not fully understand the importance of proper breast care for the success of the breastfeeding process. As a result, they may have difficulty preventing or managing lactation problems. Many breastfeeding mothers may feel less confident and lack adequate knowledge to care for their breasts properly, which can increase the risk of health problems such as mastitis or suboptimal breast milk production.

After being given education regarding breast care, 61 respondents (73.5%) showed the highest results with good scores. The knowledge and skills of a breastfeeding mother are very important in carrying out breast care (Sarofah et al., 2021), As breastfeeding mothers become more knowledgeable about breast care, problems often encountered during breastfeeding, such as mastitis and difficulty producing breast milk, will be overcome (Sumaifa, 2024). Breast care is a type of breast care performed during pregnancy or the postpartum period to ensure breast milk production, breast cleanliness, and inverted or flat nipple shape (Nurahmawati et al., 2021). Caring for your breasts while breastfeeding helps prevent and manage the risk of possible breast problems (Septiani et al., 2022). The success of Uswatun et al., 2023 states that knowledge about breast care in pregnant women is sufficient if they have received health education.

After providing health education about breast care, breastfeeding mothers generally experience significant improvements in their ability to maintain breast health. Good education not only helps them identify problems such as engorgement or blocked milk ducts early but also provides practical solutions to overcome them. Additionally, knowledge can reduce anxiety, increase self-confidence, and contribute positively to the overall breastfeeding experience. The Wilcoxon test results are reported as "Asymp.sig. (2-tailed)" with a value of $0.000 < 0.05$; it was concluded that breast care education influenced maternal breastfeeding skills in the working area of the Kalibaru Kulon Community Health Center.

Breast care education is an effort to provide information and understanding to individuals, especially breastfeeding mothers, regarding breast care techniques (Lasanuddin et al., 2022). In providing breast care education using interview and demonstration methods, namely showing the process of movement steps directly, so that respondents can easily remember (Lisa & Putri, 2019). This can facilitate individuals' knowledge and skills in carrying out breast care (Pande et al., 2024). Breast care is the act of caring for the breasts to facilitate the release of breast milk (Agustina, 2022) which can improve blood circulation and prevent blockage of milk ducts (Nurahmawati et al., 2021). This research has similarities with previous research by (Asih, 2021) namely, there is an influence of breast care education on mothers' knowledge during breastfeeding. Supported through the use of educational media such as interviews and demonstrations to increase knowledge of breastfeeding mothers.

Through breast care education, breastfeeding mothers can learn breast massage techniques that help facilitate breast milk production, so that they are more skilled in maintaining healthy lactation. The knowledge gained from breast care education allows breastfeeding mothers to recognize and overcome lactation problems early. And it can also teach breastfeeding mothers about the importance of correct positioning and latching when breastfeeding, which are important skills for preventing nipple pain and ensuring baby gets enough breast milk.

IMPLICATION AND LIMITATIONS

Implication

This study demonstrates that breast care education is effective in improving breastfeeding mothers' practical skills in performing breast care. The findings suggest that structured educational interventions, including demonstrations and direct practice, should be integrated into routine maternal and child health services at primary healthcare facilities. Health workers, particularly nurses and midwives, can utilize breast care education programs as preventive strategies to reduce lactation-related complications such as breast engorgement, blocked milk ducts, and mastitis. Furthermore, improved maternal breast care skills may contribute to successful exclusive breastfeeding practices and support optimal infant growth and development. The results of this study can serve as evidence for policymakers and healthcare providers in developing community-based breastfeeding support programs.

Limitations

Several limitations should be considered when interpreting the findings of this study. First, the study employed a one-group pretest-posttest design without a control group, limiting the ability to establish a causal relationship between the intervention and the observed outcomes. Second, the study was conducted in a single community health center area, which may limit the generalizability of the findings to other populations and settings. Third, maternal skills were assessed shortly after the educational intervention; therefore, the long-term retention of breast care skills was not evaluated. Additionally, some respondents reported feeling embarrassed during the breast care demonstration and assessment process, which may have influenced their performance. Future studies are recommended to use randomized controlled designs, involve larger and more diverse populations, and evaluate the sustainability of skill improvements over time.

CONCLUSION

The effectiveness of providing breast care education on maternal skills in breastfeeding mothers has increased in both knowledge and skills. Through breast care education, breastfeeding mothers can learn breast massage techniques that help facilitate breast milk production, so that they are more skilled in maintaining healthy lactation. The knowledge gained from breast care education allows breastfeeding mothers to recognize and overcome lactation problems early and can teach breastfeeding mothers about the importance of correct positioning and latching when breastfeeding, which is an important skill to prevent the risk of mastitis.

SUGGESTIONS

There are limitations and shortcomings in this research, namely that in collecting data, researchers have to separate breastfeeding mothers who give exclusive breast milk from breastfeeding mothers who use formula milk. Apart from that, because the research is private, some respondents felt embarrassed when carrying out breast care.

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DECLARATION OF INTEREST

The author declares that there is no conflict of interest in this research.

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AUTHOR CONTRIBUTION

Each author contributed to determining the topic of the research, formulating the proposal, analyzing and discussing it. The first author collected the data and the second author wrote the article manuscript.

REFERENCES

- Asih, E. W. (2021). Pengaruh Edukasi Perawatan Payudara Terhadap Pengetahuan dan Sikap Ibu Menyusui Diwilayah Kerja Puskesmas Mamboro. *Jurnal Kolaboratif Sains*, 4(12), 691–696. <https://doi.org/10.56338/jks.v4i12.2125>
- Citrawati, S. D., Ernawati, H., & Verawati, M. (2020). Hubungan Pengetahuan Ibu Post Partum Dengan Perilaku Perawatan Payudara. *Health Sciences Journal*, 4(1), 74. <https://doi.org/10.24269/hsj.v4i1.404>
- Diniyati, Trieleventa, L., Sihombing, L., & Susilawati, E. (2019). Terhadap Pengeluaran Asi Di Puskesmas Putri Ayu Kota Jambi Tahun 2019. *Jurnal Ilmiah PANNMED*, 14, 23–25. <https://doi.org/10.36911/pannmed.v14i1.556>
- Dinkes Jatim. (2022). Profil Kesehatan Provinsi Jawa Timur tahun 2022. In *buku*.
- Ginting, L., & Damanik, N. (2022). Hubungan Pengetahuan Ibu Nifas Tentang Perawatan Payudara Dengan Kelancaran Pengeluaran Asi Di Puskesmas Kotarih Kabupaten Serdang Bedagai Tahun 2022. *Jurnal Ilmu Kedokteran Dan Kesehatan Indonesia*, 2(3), 1–10. <https://doi.org/https://doi.org/10.55606/jikki.v2i3.634>
- Julianti, N., & Suherman, U. M. (2024). *PROFICIO: Jurnal Pengabdian Kepada Masyarakat Vol.5 No2, juli 2024. Penerapan Kombinasi Terapi*. 5, 892–900. <https://doi.org/https://doi.org/10.36728/jpf.v6i2.4804>
- Kementerian Kesehatan RI. (2022). *Profil Kesehatan indonesia 2022*.
- Lasanuddin, H. V., Ilham, R., Jusni, J., & Arfiani, A. (2022). Penyuluhan Kesehatan dan Pendampingan Perawatan Payudara Pada Ibu Nifas Di Kelurahan Oluhuta Kecamatan Kabila Kabupaten Bonebolango. *Jcs*, 4(2), 1–9. <https://doi.org/10.57170/jcs.v4i2.40>
- Lisa, U. F., & Putri, M. (2019). Pengaruh Demonstrasi Terhadap Keterampilan Perawatan Payudara Pada Ibu Hamil Trimester Ketiga Di Wilayah Kerja Puskesmas Jeulingke Kecamatan Syiah Kuala Banda Aceh. *Jurnal Penelitian Dan Pengembangan Pelayanan Kesehatan*, 3(1), 40–45. <https://doi.org/https://doi.org/10.22435/jpppk.v3i1.868>
- Niar, A., Dinengsih, S., & Siauta, J. (2021). Factors Affecting the Production of Breast Milk Breastfeeding Mother at Harifa RSB, Kolaka District Southeast Sulawesi Province. *Jurnal Kebidanan Midwifery*, 7(2), 10–19. <https://doi.org/10.21070/midwifery.v7i2.1288>
- Ningsih, G., & Arlyn, L. T. (2023). Implementasi Asuhan Kebidanan Berkelanjutan (Continuity of Care Midwifery) Di Tpm N Kebon Jeruk Jakarta Barat. *Jurnal Kajian Ilmiah Kesehatan Dan Teknologi*, 5(2), 71–80. <https://doi.org/10.52674/jkikt.v5i2.104>
- Nurahmawati, D., Mulazimah, M., Ikawati, Y., Agata, D. D., & Pratika, R. (2021). Penyuluhan Perawatan Payudara Pada Ibu Nifas Pasca Persalinan Dini Dalam Memberikan ASI Eksklusif Di Rumah Sakit Angkatan Darat Di Kota Kediri. *Abdimas: Papua Journal of Community Service*, 3(2), 61–67. <https://doi.org/10.33506/pjcs.v1i2.1416>
- Pande Purnamayanthi, Ni Made Risna Sumawati, & Pande Putu Novi Ekajayanti. (2024). PKMS PEPAYA (Pelatihan Perawatan Payudara) Pada Ibu Hamil Trimester III di UPTD Puskesmas Sukawati I Gianyar. *JURPIKAT (Jurnal Pengabdian Kepada Masyarakat)*, 5(1), 181–190. <https://doi.org/10.37339/jurpikat.v5i1.1310>
- Rahayu, T. B., & Ernawati, E. (2021). Hubungan Pengetahuan Tentang Perawatan Payudara Dengan Perilaku Dalam Perawatan Payudara Pada Ibu Nifas. *Media Ilmu Kesehatan*, 9(1), 79–84. <https://doi.org/10.30989/mik.v9i1.338>
- Retnaningtyas, E., Suhita, B. M., Febriani, N., Martiana, Serianti, Noviyanti, & Selviana. (2022). Upaya Peningkatan Pengetahuan Ibu Hamil Melalui Edukasi Mengenai Teknik Perawatan Payudara dan Manfaat Asi. *ADI Pengabdian Kepada Masyarakat*, 3(1), 38–43. <https://doi.org/10.34306/adimas.v3i1.808>
- Sarofah, E., Muthoharoh, H., & Erindah, U. (2021). Pengetahuan Ibu Nifas Tentang Perawatan Payudara Pada Masa Laktasi. *Jurnal Ilmiah Kesehatan*, 20(2), 4–13. <https://doi.org/https://10.33221/jikes.v20i2.1240> ARTIKEL

- Septiani, R., Septiani, R., Kesehatan, P., & Tanjung, K. (2022). Efektivitas Perawatan Payudara (Breast Care) Terhadap Pembengkakan Payudara (Breast Engorgement) Pada Ibu Menyusui. *MJ (Midwifery Journal)*, 2. <https://doi.org/https://10.33024/mj.v2i2.6922>
- Sinurat, L. R. E., Sipayung, R. R., & Marbun, A. S. (2021). Pendekatan Edukatif Tentang Breast Care Pada Ibu Hamil Dan Nifas Di Klinik BPM Mariana Binjai. *Jurnal Kreativitas Pengabdian Kepada Masyarakat (Pkm)*, 4(4), 969–976. <https://doi.org/10.33024/jkpm.v4i4.4065>
- Sumaifa, S. (2024). Gambaran Pengetahuan Ibu Nifas Tentang Perawatan Payudara Di Rumah Sakit Umum Daerah Syekh Yusuf Kabupaten Gowa Provinsi Sulawesi Selatan. *Jurnal Ilmu Kedokteran Dan Kesehatan*, 11(1), 026–033. <https://doi.org/10.33024/jikk.v11i1.11083>
- Uswatun Qoyyimah, A., Wahyuni, S., Dynamurti Wintoro, P., & Khotimah, C. (2023). Efektivitas Penyuluhan Kesehatan Tentang Perawatan Payudara Terhadap Pengetahuan Ibu Hamil Di Puskesmas Prambanan. *INVOLUSI: Jurnal Ilmu Kebidanan*, 13(2), 60–65. <https://doi.org/10.61902/involusi.v13i2.729>
- Wati, S., Rini, S., & Hikmanti, A. (2022). Teknik Perawatan Payudara Pada Ibu Postpartum. *Prosiding Seminar Nasional UNIMUS*, 5, 846–854.
- Yulita, N., Juwita, S., Farianti Amran, H., Febriani, A., Studi, P. D., MIPA dan Kesehatan Universitas Muhammadiyah Riau, F., Studi Sarjana Kebidanan, P., Farmasi dan Ilmu Kesehatan Universitas Abdurrab, F., Studi, P. S., & Tinggi Ilmu Kesehatan Payung Negeri Pekanbaru, S. (2021). Analisis Pengetahuan Ibu Hamil Dalam Pelaksanaan Perawatan Payudara. *MJ (Midwifery Journal)*, 1(4), 179–182. <https://doi.org/10.33024/mj.v1i4.5676>

BIOGRAPHIES OF AUTHORS



The author was born in Jember 03 June 2003, the author is a final semester nursing study program student who actively participates in campus activities in education, research and community service.

: fanesayuni.0101@gmail.com



The author was born in the city of Banyuwangi, 06 September 1983. Studied a bachelor's degree in nursing at Stikes Binawan Jakarta, graduating in 2007, and continued his master's education at Udayana University, faculty of public health sciences with a concentration in KIA-Kespro, graduating in 2015. The author also worked as Pedia ER staff for 3 years at Maternity and Children Hospital Makkah, KSA from 2008-2011 and then in From 2011 until now he has been an active lecturer at Stikes Rustida Banyuwangi.

: [Afui5K8AAAAJ](https://scholar.google.com/citations?user=Afui5K8AAAAJ)

: <https://orcid.org/0000-0001-9861-7452>

: nuzulafirdawsi@gmail.com



The author was born in Banyuwangi on February 15 1970. Studied DIII Nursing at Akper Soetomo Surabaya graduating in 1994, then continued his undergraduate education majoring in counseling psychology at Moh University. Sroedji Jember and continued his Masters at the University of Muhammadiyah Malang graduating in 2015 with a major in science psychology. The author is an active lecturer at Stikes Rustida from 1994 until now.

📧: M4n6h_QAAAAJ

✉: siswotohp@gmail.com