

THE RELATIONSHIP BETWEEN BREAST CARE DURING PREGNANCY AND THE SMOOTH PRODUCTION OF BREAST MILK IN POSTPARTUM MOTHERS AT RIZKI ANANDA CLINIC BANDA MASEN LHOKSEUMAWE CITY

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ABSTRACT Failure in the breastfeeding process is often caused by various problems in both the mother and the baby. Some mothers who do not understand the correct breastfeeding techniques may experience difficulties during breastfeeding. Common breastfeeding problems include sore nipples, breast engorgement, and breast abscess (mastitis). Based on a survey conducted by the Health Research and Development Agency in 2010, 46% of breastfeeding difficulties were due to inadequate breast care, 25% due to breastfeeding frequency of less than eight times per day, 14% due to low birth weight (LBW), 10% due to prematurity, and 5% due to acute or chronic diseases. This study aimed to determine the relationship between breast care during pregnancy and breast milk production during the postpartum period at Rizki Ananda Clinic, Banda Masen, Lhokseumawe City. This was an analytical study with a cross-sectional design, conducted from September 27 to October 9, 2024, at Rizki Ananda Clinic. Sampling was carried out using accidental sampling with a total of 32 postpartum mothers. Data were collected through questionnaires and analyzed using SPSS. The results showed that 20 respondents (63%) did not perform breast care; among them, 16 respondents (50%) experienced poor milk production, while 4 respondents (13%) had smooth milk production. On the other hand, 12 respondents (37%) performed breast care; among them, 4 respondents (12%) experienced poor milk production, while 8 respondents (25%) had smooth milk production. The conclusion of this study is that there is a significant relationship between breast care during pregnancy and smooth breastfeeding during the postpartum period, with $p = 0.021$, meaning $p < \alpha (0.05)$, indicating that H_0 is rejected and H_a is accepted. The results of this study are expected to provide direction for improvements, particularly for health workers to enhance health education so as to improve mothers' skills in proper breast care, thereby reducing the incidence of sore nipples, breast engorgement, and breast abscesses.

KEYWORDS: *Breast Care, Breast Milk Production, Mothers*

1. INTRODUCTION

Breast care during pregnancy is an important aspect to consider in preparation for breastfeeding. Physiological changes in the breasts, such as swelling and darkening of the areola, often make them more susceptible to irritation and even injury. Therefore, breast care during pregnancy is essential (Saryono, 2019).

Breast care during pregnancy provides various benefits, including maintaining breast hygiene, especially the nipple area, making the nipples supple and strengthening them to make it easier for the baby to suckle, stimulating the milk glands so that breast milk production is greater and smoother, and early detection of breast abnormalities for immediate treatment (Zafa, 2019).

Breastfeeding failure is often caused by various issues experienced by both mother and baby. Some mothers lack understanding of proper breastfeeding techniques, resulting in problems such as sore nipples, engorged breasts, and mastitis (Sulistiyawati, 2019). One way to prevent these problems is to practice breast care during pregnancy and provide health education through counseling sessions, complete with demonstrations of breast care practices, both for postpartum mothers and during postpartum visits. This education is important because it helps mothers make informed decisions and improves their skills in proper breast care, ensuring smooth breastfeeding and improving the health of both mother and baby (Rahmayanti, 2022).

The breast is the sole organ that produces milk, which is the primary source of nutrition for newborns. Therefore, breast care should be undertaken as early as possible, even during pregnancy, to ensure optimal lactation (Rahayuningsih, 2020). However, the rate of breastfeeding failure remains quite high. According to the WHO (2019), approximately 35.6% of mothers experience breastfeeding failure, and 20% of these mothers are from developing countries. The 2020 Basic Health Research (Riskesdas) data also shows that 67.5% of mothers fail to provide exclusive breastfeeding due to a lack of understanding of proper breastfeeding techniques, which then leads to problems such as sore and cracked nipples (Riskesdas, 2020).

The Health Research and Development Agency (2020) survey reported that 46% of cases of breast milk supply problems were caused by suboptimal breast care, 25% due to breastfeeding frequency of less than eight times per day, 14% due to low birth weight (LBW), 10% due to premature birth, and 5% due to acute or chronic diseases (Indonesian Ministry of Health, 2020).

In Aceh Province, exclusive breastfeeding coverage only reaches 45% (Health Office, 2022). According to a 2021 report from the Aceh Provincial Health Office, the target number of postpartum mothers reached 100,486. Meanwhile, data from the 2020–2021 RSUZA Hospital showed 8,725 postpartum mothers, with 108 cases of mastitis. This condition is closely related to

the low level of breastfeeding practices. Yet, breast milk offers significant benefits for infants aged 0–2 years, particularly in protecting against various infections, including gastrointestinal disorders, respiratory disorders, and viral infections (Aceh Provincial Health Office, 2022).

Based on the description, the author is interested in researching the "Relationship between Breast Care During Pregnancy and Breast Milk Production in Postpartum Mothers at the Rizki Ananda Clinic, Banda Masen Lhokseumawe City "

2. METHOD

a. Types and Designs

This research is an analytical survey research with a cross-sectional approach, namely the researcher studied the relationship between the dependent variable and the independent variable by collecting data (Noto Atmojo. (2020). To determine the relationship between knowledge about breast care during pregnancy and breast milk production in postpartum mothers at the Rizki Ananda Banda Masen clinic, Lhokseumawe City.

b. Place and Time

The research was conducted at the Rizki Ananda Banda Masin Clinic, Banda Sakti District, Lhokseumawe City. The research period was from January to October 2024.

c. Population and Sample

Population is the entire object being studied (Notoatmodjo, 2010). The population in this study was all postpartum mothers who gave birth at the Rizki Ananda Banda Masen Clinic, Lhokseumawe City, totaling 45 people in June 2024. The sample is a portion taken from the entire object being studied and is considered to represent the entire population (Notoatmodjo, 2010). The sampling technique was accidental sampling, namely sampling by chance and according to criteria. Sampling was carried out from January to October 2024 with a sample size of 32 respondents. With sample criteria:

- a. Post partum mother (postpartum period)
- b. Multiparous postpartum mothers
- c. Postpartum mothers who have a history of lactation

d. Variables and Operational Definitions

Variables study in study This is . Variable in study This is variables single consisting of from variables dependent (care breast during pregnancy) and variables independent (fluency breast milk production).

Table 1. Operational Definitions

No	Variables	Operational Definition	Measuring instrument	Measuring Scale	Measurement Results
1.	Maintenance breast during pregnancy	Caring for and maintaining the cleanliness of the mammae (breasts) of mothers who are pregnant.	Questionnaire	Final name	▪ Done <7 ▪ Are not done >7 - Smooth <7 - Not smooth >7
2.	Smooth flow of breast milk	something related to the mother's efforts to increase breast milk during breastfeeding	Questionnaire	Ordinal	

The research instrument was a questionnaire containing items measuring breast care variables during pregnancy and smooth breast milk production. Data collection was carried out using a questionnaire distribution technique. The collected data will be processed through editing, coding, transferring, and tabulating steps.

e. Data analysis**1. Univariate Analysis**

Univariate analysis was conducted to describe or find the relationship between two independent variables, namely breast care and the dependent variable, namely the smoothness of breast milk production, and then categorized using the nominal level measurement formula (Arikunto. (2018)).

Formula :

$$P = \frac{F \times 100\%}{N}$$

Information :

P = Percentage

F = Number of correct answers

N = number of questions

2. Bivariate Analysis

To test the hypothesis by determining the relationship between variables independent variable with dependent variable through statistical test or Chi Square test in stages with computerized assistance. Decision making is there is a relationship or no relationship with a significance level of 5% (0.05). Furthermore, the conclusion is drawn if the value of p value $< \alpha = 0.05$ then H_a is accepted and H_o is rejected which indicates there is a relationship between breast care and smooth breast milk production, and if the value of p value $> \alpha = 0.05$ then H_a is rejected and H_o is accepted which indicates there is no relationship between breast care and smooth breast milk production

3. RESULT AND DISCUSSION

A. Research result

1. Univariate Analysis

Analysis univariate in study This give description related characteristics respondents based on age respondents , level education , work , Gravida And history Lactation Analysis univariate Also describe the independent variable that is smoothness breast milk production , and variables dependent maintenance breasts . Respondent characteristics

a. Respondent Characteristics

Table 5.1. Distribution Frequency Characteristics Respondents at the Clinic Rizki
Ananda Banda Masen, Lhokseumawe City 2024

Variables And Category	Frequency (n)	Percentage (%)
Age		
> 25	11	34
25-35	17	53
< 35	4	13
Level of education		
Elementary school/ equivalent	3	9
Junior high school/ equivalent	17	29
High school/ equivalent	9	53
D3	3	9
Employment level	4	13
Farmer	25	78
civil servant	10	31
housewife	16	50
Gravida	2	6
2	4	13
3	28	87
4	4	13
5		

Variables And Category	Frequency (n)	Percentage (%)
History Lactation		
Breast-feed		
No Breast-feed		

From table 5.1 above, it can be seen that the most dominant age of respondents is the 25-35 age group with 17 people (53%), the most dominant level of education of postpartum mothers is high school/equivalent with 17 people (53%), the most dominant occupation of postpartum mothers is self-employed with 25 people (78%), the most dominant pregnancy (Gravida) is the 16th pregnancy with 16 people (50%), and the most prominent history of maternal lactation is breastfeeding with 28 people (87%).

2. Univariate analysis of research variables

a. Breast Care for Pregnant Women

Table 5.2 Distribution of Breast Care Frequency During Pregnancy at the Rizki Ananda Clinic, Banda Masen, Lhokseumawe City, 2014

Category	Frequency (n)	Percentage (%)
Done	20	62
No done	12	38

From table 5.2 above can seen that maintenance breast on Mother pregnant at the clinic Rizki Ananda part big is at on category No done maintenance breast totaling 20 people (62%).

b. Smooth flow of breast milk

Table 5.3 Distribution Frequency Smoothness Expenditure Breast milk On Time Postpartum in Clinic Rizki Ananda Banda Masen, Lhokseumawe City 2014

Category	Frequency (n)	Percentage (%)
No Fluent	20	62
Fluent	12	38

From table 5.3 above can seen that smoothness breast milk production in Mother postpartum at the clinic Rizki Ananda part big is at on category breast milk production is not fluent totaling 20 people (62%)

Table 5.4 Connection Maintenance Breast During Pregnancy With Smoothness Expenditure Breast milk On Time Postpartum at the Clinic Rizki Ananda Banda Masen, Lhokseumawe City Year 20 24

Breast care	Smooth flow of breast milk						Test Results
	Fluent		Not smooth				
	n	%	%	n	%		
Done	4	13	16	50	20	63	<i>p=0.021</i>
Are not done	8	25	4	12	12	37	
Amount	12	38	20	62	32	100	
Significant <i>p</i> < 0.05							

Based on table 5.4 above, where breast care was not carried out by 20 respondents (63%), breast milk production was not smooth by 16 respondents (50%), breast milk production was smooth by 4 respondents (13%). Breast care was carried out by 12 respondents (37%), breast milk production was not smooth by 4 respondents (12%), breast milk production was smooth by 8 respondents (25%).

The results of the analysis using the chi-square test showed that there was a relationship between breast care during pregnancy and breast milk production during the postpartum period. $\rho = 0.021$ was found, which means that $\rho < \alpha$, meaning that H_0 was rejected and H_a was accepted.

2. Discussion

1. Analysis Univariate

a. Breast care

From the results of research conducted at the Rizki Ananda Clinic in Lhokseumawe City, it can be seen that postpartum mothers who do not perform breast care are 20 people (63%). The researcher's assumption is that postpartum mothers who do not perform breast care is due to their low level of education, and the mother's work is predominantly housewife so that the mother does not get information about how to perform breast care.

If breast care is not carried out during pregnancy as early as possible, various negative impacts can arise if breast care is not carried out, namely: Children have difficulty breastfeeding, breast milk is not smooth or comes out after a few days of delivery, nipples do not protrude (inverted nipples) so that the baby has difficulty sucking, breast milk production is small and not smooth so that it is not enough for the baby to consume, breast infection, swollen or pus-filled breasts, lumps appear in the breast, breast skin, especially the nipples, will be easily chafed.

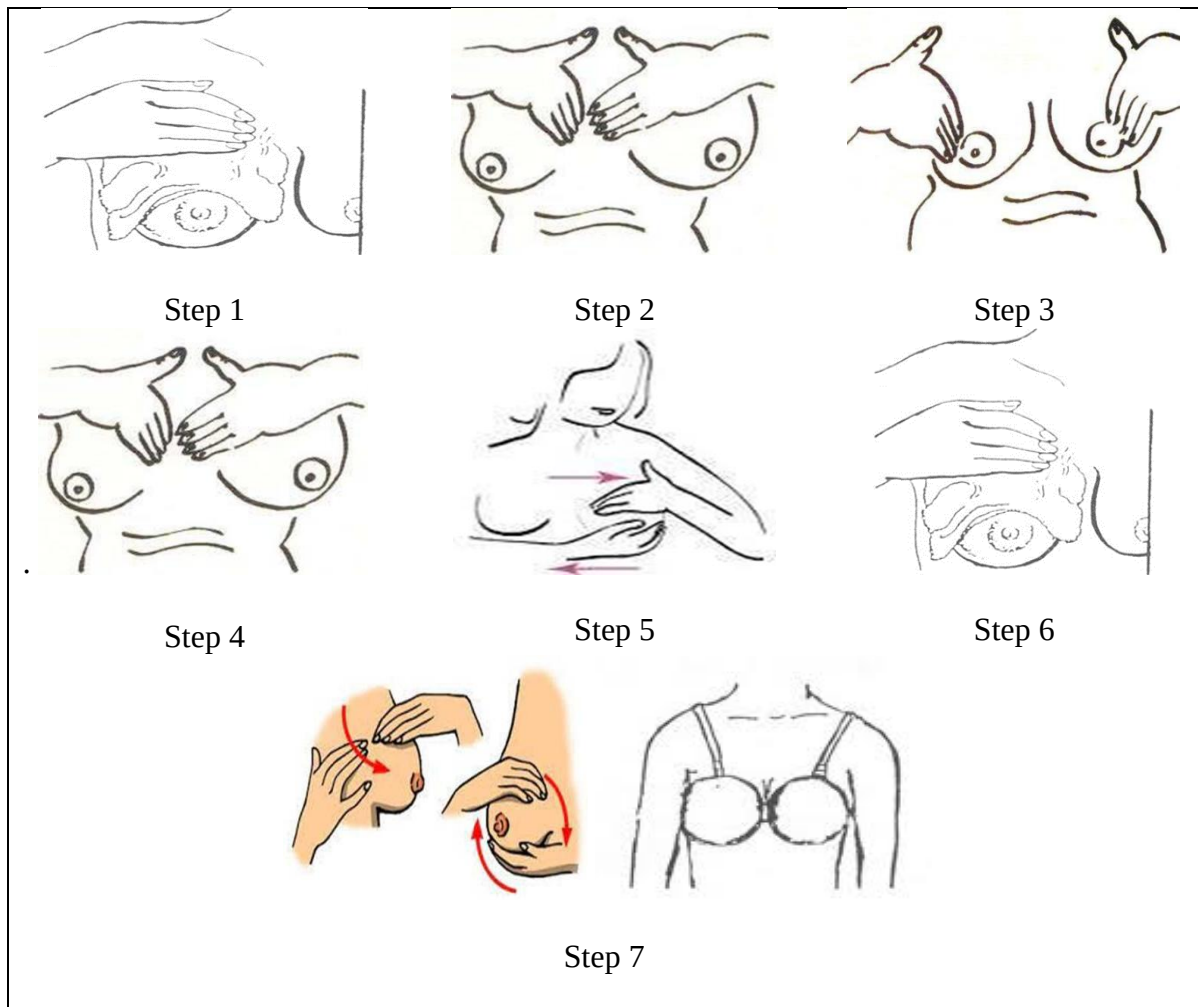


Figure 1: Breast Care Steps

b. Smooth flow of breast milk

From the results of research conducted at the Rizki Ananda Clinic in Lhokseumawe City, it can be seen that the most dominant postpartum mothers whose breast milk production is not smooth are 20 people (62%). The researcher's assumption is that postpartum mothers whose breast milk production is not smooth is due to their low level of education, and the mother's work is predominantly housewife so that the mother does not get information about how to make her breast milk production smooth.

In accordance with Nurhidayah's theory, (2012) a lot of breast milk can leak out through the nipple. If the breast milk is smooth, the following signs will be seen: Before breastfeeding, the breast feels tense, weight, increases satisfactorily according to age, if breast milk is sufficient, after breastfeeding the baby will fall asleep / calm for 3-4 hours, the baby urinates more often, about 8 times a day. Babies who get adequate breast milk are generally calmer, not fussy and can sleep soundly.

A sure sign that breast milk is adequate can be seen in the baby's good weight gain. Under normal circumstances, the age of 0-5 days, the baby's weight will usually decrease. After 10 days, the baby will return to its birth weight. Breast milk is naturally produced in an amount appropriate to the baby's needs.

2. Bivariate Analysis

In general, the results of the study showed that there was a relationship between breast care in pregnant women and breast milk production in postpartum mothers. The results of the analysis using the chi-square test showed that there was a relationship between breast care in pregnant women and breast milk production in postpartum mothers, with $p = 0.021$, which means $p < \alpha$. Therefore, H_0 was rejected and H_a was accepted. The researcher assumed that most of the respondents who did not carry out breast care had their breast milk production not running smoothly. This is in accordance with Saryono's theory (2009) which states that one of the benefits of breast care is to stimulate the milk glands so that breast milk production is abundant and smooth.

Limitations Study

In general, the results of the study showed that there was a relationship between breast care in pregnant women and breast milk production in postpartum mothers. The results of the analysis using the chi-square test showed that there was a relationship between breast care in pregnant women and breast milk production in postpartum mothers with $p = 0.021$, which means $p < \alpha$. So H_0 was rejected and H_a was accepted.

Researchers assumed that the majority of respondents who did not perform breast care had poor milk production. This aligns with Saryono's (2009) theory, which states that one of the benefits of breast care is stimulating the mammary glands, resulting in abundant and smooth milk production.

4. CONCLUSION

Based on the results of research conducted from January to October 2024 at the Rizki Ananda Clinic in Lhokseumawe City, with 32 respondents, the authors drew several important conclusions. The results showed that the majority of pregnant women, namely 62%, did not perform breast care during pregnancy. Furthermore, during the postpartum period, it was found that 69% of mothers experienced difficulty in producing breast milk. Further analysis showed a significant relationship between breast care during pregnancy and smooth milk production in postpartum mothers, indicated by a value of $p = 0.021$ ($p < \alpha$), so it can be concluded that the alternative hypothesis is accepted.

Based on these findings, the authors offer several suggestions. Respondents are expected to maintain and improve the implementation of health promotion strategies, thereby improving the outcomes of community service. The management of the North Aceh Nursing Study Program, Poltekkes Kemenkes Aceh, is advised to conduct training on the implementation of health promotion strategies, particularly for students who will undergo Community Practice II in the future. Lecturers and supervisors of Community Practice II are also expected to provide stimulation to students so they can implement health promotion strategies in each subsequent practice activity.

More specifically, additional suggestions can be detailed as follows. First, respondents are advised to perform breast care during subsequent pregnancies to ensure smoother breastfeeding. Second, students at the Aceh Ministry of Health Polytechnic of Health are expected to be provided with information and knowledge regarding the relationship between breast care during pregnancy and smooth breast milk production. Third, the management of the North Aceh Nursing Study Program is urged to expand the library's collection of reading materials and conduct training for lecturers, particularly maternity nursing lecturers, to improve the quality of healthcare services. These steps will achieve more optimal results and contribute to improving the quality of healthcare services.

Finally, for future researchers, this study can serve as a reference for conducting more in-depth studies, particularly regarding the factors causing inadequate breast milk production in postpartum mothers. Therefore, future research findings are expected to provide valuable input for improving the quality of healthcare services, particularly in maternal and child health.

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