

BREAST MILK PRODUCTION AND DETERMINING FACTORS

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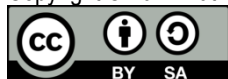
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ABSTRACT

Good maternal nutrition and exclusive breastfeeding, optimal nutrition for infants and toddlers is important for good growth and development, this can reduce the risk of non-communicable diseases (NCDs) for both mothers and children. The purpose of this study is This study aims to determine the relationship between the nutritional status of breastfeeding mothers and breast care with the adequacy of breast milk. Cross-sectional research design. The population is 74 people. The sampling technique uses Purposive Sampling. The number of samples is 34 breastfeeding mothers. The results of the study showed that there was a relationship between food variation and breast care with the adequacy of breast milk with a p-value of 0.000. and there is a relationship between breast care with the adequacy of breast milk with a p-value of 0.003. Conclusion Breastfeeding mothers need a variety of foods and good breast care, the growth and development of babies are supported by good nutritional intake. Suggestions provide a variety of nutritious foods and carry out routine breast care for breastfeeding mothers.

Keywords: adequate breast milk, breastfeeding, Breast Care, exclusive breastfeeding, maternal nutrition

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INTRODUCTION

Inadequate breast milk production is a major barrier to breastfeeding. A significant problem that occurs in breastfeeding is a lack of breast milk. Breast milk shortages are identified as occurring in 60-90% of developing countries. (Desai et al., 2014). Babies who do not get enough breast milk can experience hypoglycemia, hypernatremia, malnutrition and growth and development failure in newborns. (Lee & Kelleher, 2016).

A common problem among breastfeeding mothers is malnutrition, this occurs in several developing countries. (Berhe et al., 2019). Ibu Breastfeeding in developing countries is considered a vulnerable group to nutrition, this is because breastfeeding mothers have very high nutritional needs during breastfeeding. Mothers who do not have good nutrition during breastfeeding will have an impact on the release of breast milk with inadequate nutrition, this will have a bad impact on the child's health in the long term. (Szyller et al., 2024).

The global breastfeeding rate in the first six months is 48%, which shows an increase over the

last 10 decades. In 2023, it has not yet reached the World Health Organization (WHO) target of 50% in 2025 and 70% in 2030. (UNICEF, 2023).

The number of breastfeeding in Indonesia in 2023 based on the results of the 2023 Indonesian Health Survey (SKI) was 68.8%. With the highest provinces being NTB province 87.9%, Jambi 81.3% and NTT 79.7%(Survey Kesehatan Indonesia, 2023).

Good maternal nutrition and exclusive breastfeeding, optimal nutrition for infants and young children is important for proper growth and development, this can reduce the risk of non-communicable diseases (NCDs) for both mothers and children. (WHO, 2020). Exclusive breastfeeding is recommended by WHO for the first six months of life, this is to support growth and development, in addition breastfeeding is also beneficial for improving the welfare of mothers. (WHO, 2020). While breastfeeding, it is recommended that mothers consume a lot of calories, protein, vitamins, minerals, iron, calcium and folic acid to meet nutritional needs while breastfeeding. (Husnah, 2022).

Breastfeeding mothers need more balanced nutrition. Efforts are made to reduce problems that occur in babies due to a lack of nutritional intake during breastfeeding. Menteri Kesehatan, (2014) regulates that the food consumed must be varied, this is intended to meet the needs of the mother and the growth and development of the baby. Research conducted by Bzikowska A, Czerwonogrodzka-Senczyna A & H, (2017) Mothers with diverse diets will affect the composition of breast milk.

Nutrition is the process by which living organisms utilize normally available food through digestion, absorption, transport, storage, metabolism, and excretion of unused substances to maintain life, growth, and normal function of body organs, and to produce energy. (Kemenkes RI, 2022).

The main food for babies is breast milk, the time when breast milk is needed the most is especially in the first month, breast milk that contains sufficient nutrition will provide enough energy to the baby, breast milk contains very complex nutrition and is very easy for babies to digest, breast milk can increase the body's resistance which is obtained from the immunoglobulin content in breast milk. (Youwe et al., 2020).

The ability to breastfeed in mothers who are malnourished will be reduced, this can cause the amount of breast milk produced to also be reduced, the amount of breast milk produced by the mother depends on the diet and nutritional care consumed by the mother, adequate nutrition and a good diet not only meet the nutritional needs of the mother, but also meet the needs of breast milk for the baby, so that the baby's nutritional needs can be met through breast milk. (Jackson & Hallam, 2021).

This study aims to determine the relationship between nutritional status of breastfeeding mothers and breast care with breast milk adequacy.

METHOD

This study was conducted on September 19 - October 19, 2024. This study used a cross-sectional design. The population in this study was 74 breastfeeding mothers. The sampling technique was Purposive Sampling. The number of samples

was 34 breastfeeding mothers. The data analysis method used the Chi-Square Test using SPSS. This study has passed the ethical test with no 0963/KEPK/Adm1/IX/2024

RESULTS

The research results are divided into two, namely univariate and bivariate analysis. The following is an explanation of each analysis.

Table 1. Frequency distribution of respondents based on nutritional status

No	Breast milk production	Frequency	Percentage
1.	Not enough	7	23,33
2.	Good	23	76,67
	Total	34	100

Based on table 1.1, the results of the univariate analysis based on nutritional status, the highest is normal nutritional status, which is 23 (67.65%).

Table 2 Frequency Distribution of Respondents Based on Food Variations

No	Food Variations	Frequency	Percentage
1.	No Variations	12	35,29
2.	Variations	22	64,71
	Total	34	100,00

Based on table 1.2, the results of the univariate analysis based on the highest food variation were 22 (64.71%) .

Table 3 Frequency Distribution of Respondents Based on Breastfeeding Fluency

No	Breast Care	Frequency	Percentage
1.	Don't Do It	19	55,88
2.	Done	15	44,12
	Total	34	100,00

Based on table 3, the results of the univariate analysis based on the highest smoothness of breastfeeding were Smooth at 29 (85.29%).

Table 4 Relationship between Food Variation and Breast Care with Breast Milk Production

Table 1. Relationship between Food Variation and Breast Care with Breast Milk Production								
Variables	Category	Breast milk production				Total		P-Value
		Not good		Good		f	%	
		f	%	f	%			
Food	No Variations	9	75,00	3	25,00	12	100,00	0,000
Variations	Variations	4	18,18	18	81,82	22	100,00	
Breast Care	Don't Do It	13	68,42	6	31,58	19	100,00	0,003
	Done	3	20,00	12	80,00	15	100,00	

Based on table 4, it is known that out of 34 respondents, the results of the food variation variable obtained better breast milk production than non-varied food with a total of 18 (81.82%) and obtained a P-Value of 0.000, which means that there is a relationship between food variation and breast milk production. The breast care variable results of respondents who did breast care were better compared to those who did not do breast care with a result of 12 (80%) with a P-Value of 0.003, which means that there is a relationship between breast care and breast milk production.

DISCUSSION

Based on this study, it was found that there is a relationship between food variation and breast care with breast milk production. This can be seen from the results of the Chi-Square test of food variation with a value of 0.000 and breast care with a value of 0.003. This study proves that mothers who eat a variety of foods and carry out breast care will get more optimal breast milk production. Based on the results of the research, nutrition is important for maximizing breast milk production. Breast milk is the main food for babies to achieve optimal growth and development.

The most perfect baby food is breast milk. Breast milk is good in quality and quantity. Breast milk contains a fat emulsion in a solution of protein, lactose and organic salts secreted by both mammary glands (Endah & Oktavianti, 2014). Breast milk production is influenced by the food intake consumed by the mother. If the mother eats nutritious food and a balanced menu, the breast milk content will also be very good and production will be maximized (Endah & Oktavianti, 2014).

Based on research conducted by Firawati & Kasim, (2023) nutrition has an effect on increasing

breast milk production. Mothers who breastfeed must eat a broader range of foods to satisfy their requirements for energy, protein, and micronutrients (vitamins and minerals) as they are utilized to sustain maternal well-being and dairy output. Protein is essential for the production of the hormone prolactin. (to generate breast milk) and the hormone oxytocin (to release milk). Essential micronutrients required while nursing, essential nutrients include iron, folic acid, vitamins A, B1 (thiamine), B2 (riboflavin), and B3 (niacin), B6 (pyridoxine), vitamin C, vitamin D, iodine, zinc, and selenium. A lack of these nutrients in the mother leads to a reduction in the quality of breast milk (Husnah, 2022).

The consumption of nutritious food by breastfeeding mothers influences the quality of breast milk and how rapidly the body reverts to its initial form prior to pregnancy and childbirth. Nursing mothers require an extra intake of 400 - 500 calories daily to support optimal breast milk production and The overall caloric requirements during breastfeeding rise to 2500 - 2700 kcal daily with a boost in carbohydrates at 65 grams daily, protein at 25 grams, 500 milligrams of iron each day, 2500 IU of vitamin A, 0.4 milligrams of vitamin B1, and 30 milligrams of vitamin C. Nutrients are to be consumed from the mother's body and needs to be substituted by the mother's daily nutritional intake (Kemenkes RI, 2022).

The production of breast milk is affected by the hormone prolactin. The hormone prolactin is the primary hormone that regulates and induces the discharge of breast milk. This hormone controls the alveolar cells to generate breast milk. The production of the hormone prolactin will be hindered if the mother is experiencing poor maternal health. nourishment. If the mother's diet is adequate, it will

promote the secretion of prolactin which will stimulate the adenohypophysis (anterior pituitary) in order for prolactin to be released (Kusparlina, 2020).

The effects of insufficient breast milk will cause the baby to lack nutrition and will have a negative effect on growth and development and even impact the baby's intelligence (Samiun, 2019). Many things affect breast milk production, one of which is nutrition. The nutritional needs consumed by breastfeeding mothers are determined by the eating habits of the mother. An unbalanced diet will have a negative impact on the mother and baby, and will affect the production of breast milk (Asikin et al., 2023).

Adequate nutrition while breastfeeding is a crucial necessity for nursing mothers. The nutrition of nursing mothers is directly connected to the production of breast milk, which is required for the baby's growth and development. Mothers who breastfeed are not excessively strict in Controlling their diet, the key factor is sustenance that ensures the development of adequate breast milk of high quality to fulfill the requirements of their infants (Saputra, 2016)

The purpose of breast care is to maintain breast hygiene, increase and facilitate the release of breast milk. Breast care can facilitate the production of breast milk by stimulating the breast milk glands through massage, preventing breast milk stasis or swelling in the breasts. (Damanik, 2020).

Breast massage also functions to stimulate the lactiferous glands (prolactin hormone) so that breast milk production can be produced more quickly. (Triansyah et al., 2021)

This research is in line with research conducted by Triansyah et al., (2021) There is a relationship between breast care and breast milk production in breastfeeding mothers. Research conducted by Mukarramah et al., (2021) also found that mothers who did breast care produced more breast milk than mothers who did not do breast care.

Based on this research, researchers believe that breastfeeding mothers with a good variety of foods and regular breast care will get optimal breast milk production results.

CONCLUSION

Breastfeeding mothers need a variety of foods and good breast care, the growth and development of babies are supported by good nutritional intake. Providing sufficient breast milk is intended so that babies are not attacked by serious diseases, such as Stunting in babies.

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