

THE RELATIONSHIP BETWEEN FREQUENCY OF BREASTFEEDING AND NEWBORN WEIGHT LOSS

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Article Information

Received:
December 12, 2019

Revised:
December 08, 2020

Accepted:
January 05, 2021

Available Online:
January 22, 2021

Abstract

Breast milk contains many nutrients, an ideal composition for the baby's needs in the growth stage. In the first ten days, the newborn's weight will decrease by less than 10% of birth weight. Adequacy of breastfeeding for newborns can increase the baby's weight significantly. Mostly, weight is used to determine the baby's growth. To increase the baby's weight, the baby needs proper nutrition, and breastmilk is the primary nutrition for babies less than six months old. One of the factors that influence breast milk production is the frequency of breastfeeding. It helps to stimulate breast milk production. This research aims to analyze the relationship between the frequency of breastfeeding and newborn weight loss. This research used purposive sampling, and the collected data were analyzed using chi-square. The analysis showed that the p-value is 0.003, which means a significant relationship between breastfeeding frequency and newborn weight loss.

Keywords: *Frequency of breastfeeding, Baby weight*

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1. Introduction

Nutrition is a vital predictor factor of growth and development in the first 1000 days of life, start from conception to 2 years of age. During this window, whatever occurred to the baby would be permanent and cannot be repaired. Also, the fulfillment of proper nutrition for the babies will support the growth and development process.^[1]

Good nutritional status plays a role in achieving a national health degree and improving its quality of life. A baby's nutritional status reflected society's development and welfare and influenced the child's health status in the future—also, child nutritional status influencing national general health.^[2]

The standard of child growth parameter is based on length/height and weight. Bodyweight is the most common anthropometric measure that was used for any age group. Newborns at their first days will experience a birth weight decrease of about 10%. It occurred caused by an imbalance from the elimination (meconium and urine) with nutrition intake.^[3]

Providing adequate nutrition are essential to babies' growth and development. On the contrary, lack of nutrition can reduce the baby's weight. After the baby was born, efforts must be made to breastfeed exclusively for about six months. Nowadays, there were many babies had increase weight that does not match their age.^[4]

Based on the growth curve published by the National Center for Health Statistics (NCHS), babies who are exclusively breastfed at two weeks of age will increase and grow according to or even above the chart until the age of 3 months. Babies will weigh two times their birth weight at 5 to 6 months of age and three times their birth weight at one year of age. They would gain four times as much weight in 2 years, five times in 3 years, six times as much in 5 years, and ten times as much in 10 years.^[5]

Breast milk is considered the best nutrients for the baby's growth and development.^[6] Breast milk contains a rich source of immune components that works as a protective factor in reducing child morbidity and mortality. It reduces the risk of diarrhea, ear infections, coughs, colds, and allergic diseases in babies.^[7]

Exclusively breastfed babies are 14 times more likely to survive in the first six months of life than the non-exclusively breastfed. Early breastfeeding reduces the risk of newborn death by about 45%. Breastmilk contributes to boost child development and prevent obesity and chronic disease. Recent research in the United States and the United Kingdom showed that economically breastfed helps household saving, especially health expenditures. Babies who exclusively breastfed were far from the risk of getting sick.^[8]

Several factors influenced the lactation process, such as the breastfed technique, the frequency, duration, and mothers' intake.^[9] The increased frequency of breastfeeding help to accelerated weight gain. Breastfed on-demand is the best way to prevent problems during breastfeeding or the baby. The duration of breastfeeding helps balance foremilk and hindmilk expenses, which are beneficial for babies' growth and development.^[10]

The fewer the number of non-exclusive breastfed babies affect their health quality in the future. Not given

breastmilk exclusively can reduce baby weight, indirectly increasing the infant mortality rate (IMR).^[11]

Based on the background and considering the importance of attention for newborns, the authors feel the need to study the relationship between breastfeeding frequency with newborn weight loss.

2. Method

This study used a cross-sectional approach. Samples were taken using purposive sampling and obtained 46 newborns in Rumah Zakat Primary Clinic in April-June 2019. Data were collected using an observation sheet that was filled in by the mother of the baby. The collected data analyzed using chi-square.

3. Results and Discussion

Table 1 Distribution of Breastfed

Frequency			
No	Breastfed	f	%
1	< 8x	7	15,2
2	≥ 8x	39	84,8
Total		46	100

Table 1 showed that 39 (84.4%) respondents breastfed their babies more than eight times a day, and seven respondents (15.2%) breastfed their babies less than eight times a day.

Rikasni, in her previous study, stated that mothers were encouraged to breastfeed whenever the baby wants. After giving birth, breast milk is produced in sufficient numbers, so term babies usually could be breastfed about ten times a day for the first two weeks. Moreover, breastfeeding more often helps to stimulate breastmilk production. The baby's' needs increase to 8-12 times a day when they reach 2 to 6 weeks old. Healthy babies can empty one breast for about 5-7 minutes, and the milk in the baby's stomach will be empty for 2 hours. Therefore babies are expected to drink breastmilk every 2 hours.^[12]

Fatimah's previous study stated that breastfeeding should be given about

8- 12 times a day; it would help gain weight and prevent growth and development disorders.^[13]

Table 2 Distribution of Newborn Weight Loss at First Seven Days Live

No	Weight Loss	f	%
1	< 10%	41	89,1
2	> 10%	5	10,9
Total		46	100

Table 2 showed that most newborns experienced weight loss of less than 10% (89.1%) in the first seven days, 10.9% of newborns were loss their weight more than 10%.

A previous study showed that in most terms, babies would experience a weight loss of 4-7% of their birth weight during the first week of life. Changes in body weight during infancy occur as a result of fluid shifting from intracellular to extracellular. The increase in extracellular fluid causes diuresis of salt and water in the first 48-72 hours. The excretion of fluid in infants can be through the kidneys and the gastrointestinal system. Infants lose 40% to 50% of fluid intake through urine and 3% to 10% through feces.^[14,15]

Table 3 Correlation Distribution of Breastfeeding Frequency with Newborn Weight Loss

Frequency of Breastfeeding	Weight Loss		Total	P-value	OR
	< 10%	>10%			
< 8x	4	3	7	0,00	0,0
≥ 8x	37	2	39	3	5
Total	41	5	46		

Chi-square analyzed obtained p-value 0.003; it shows a significant relationship between the frequency of breastfeeding and weight loss in newborns. Breastfed babies would gain weight properly without any additional food/drink. Breastfed babies also make them more healthy and resistant to get

an infection, less prone to allergies, and rarely get sick.^[16]

A previous study stated that babies who had breastfeeding more often would likely experience 1.607 times the increase in body weight.^[17] A previous study stated that babies who had breastfeeding more often would likely experience 1.607 times the increase in body weight. Another study also stated that a relationship between the frequency of daily breastfeeding and the incidence of malnutrition. Toddlers who were breastfed more than eight times a day are at risk of suffering from malnutrition by 3.75 times.^[16] Breast milk is a rich nutritional source to improve babies' health. The weight gain showed that the baby had proper nutrition.^[13]

The smoothness of the lactogenesis process determines the onset of lactation. The baby's failure to breastfeed is one factor that can cause the onset of lactation for more than three days. The frequency of breastfeeding is related to stimulation of suction in the breast with oxytocin and prolactin production to produce milk. Breastfeeding more than six times in the first 24 hours after the baby is born can ensure sufficient milk in the following days.^[18]

4. Conclusion

This study showed a significant relationship between the frequency of breastfeeding and newborn weight loss in the first seven days of life. Babies breastfed more than eight times a day will only lose less than 10% of their body weight.

The author suggests that mothers breastfeed their babies more than eight times a day, and health worker support and encouragement greatly help the mother to breastfeed more often

5. Acknowledgment

Authors would like to thank the entire team of this research and to Surabaya Nahdlatul Ulama University.

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