



Relationship of Exclusive Breastfeeding with The Incidence of Acute Diarrhea in Infant

1st Annisa, Y

Duta Bangsa University Surakarta
Sukoharjo, Indonesia
yeonrioh14@gmail.com

2nd Ikrima, R

Duta Bangsa University Surakarta
Sukoharjo, Indonesia
ikrima_rahmasari@udb.ac.id

3rd Dwi, N

Duta Bangsa University Surakarta
Sukoharjo, Indonesia
dwinur_wahyuningsih@yahoo.com

4th Alfinna, H

Duta Bangsa University Surakarta
Sukoharjo, Indonesia
alfinnahimalia2001@gmail.com

ABSTRACT

Breastmilk is the best food for babies, especially in the first months of life. Exclusive breastfeeding or more precisely exclusive breastfeeding is that babies are only given breast milk without additional fluids or food. Babies who are breastfed at birth until several months afterward will be protected from various kinds of infections, both those caused by bacteria, viruses and other antigens. In developing countries, infants who are not exclusively breastfed at 0-6 months of age can increase the risk of morbidity and mortality due to diarrhea. This study is an analytical study by looking for variable relationships. The method used is cross sectional. The sample of this study was 50 babies aged 0-6 months. The research instrument used a questionnaire about exclusive breastfeeding and diarrhea. Analysis of the data obtained were analyzed using qualitative statistical techniques using univariate and bivariate analysis. The test used in this bivariate analysis is Chi Square (with a significant level of 0.05). The conclusion of this study is that there is a relationship between exclusive breastfeeding and the incidence of acute diarrhea in infants.

Keywords: *Exclusive breast milk, acute diarrhea, infants 0-6 months*

I. INTRODUCTION

Exclusive breastfeeding for infants and toddlers greatly affects the frequency of diarrhea. Breastfeeding has a good effect on the prevention of infectious diseases and child

development compared to bottle milk (Imtiaz & Saleem, 2010). Breast milk contains the majority of water as much as 87.5%, therefore babies who get enough breast milk do not need to get additional water even though they are in a place that has hot temperatures. Breast milk is according to the baby's digestive tract, while formula milk is thicker than breast milk. This can cause diarrhea in infants who receive formula milk (Roesli & Yohmi, 2018).

The milk that comes out for the first time while breastfeeding is rich in protein, and the last one that comes out is rich in fat. Breast milk has various kinds of digestive enzymes that are not able to be produced by newborns, such as *amylase* (reducing carbohydrates) and *proteases* (reducing protein). So it is highly recommended to exclusively breastfeed the breasts from 0-6 months of age (Puspitorini, 2011).

In Indonesia, the percentage of mothers who exclusively breastfeed for up to 6 months is 15.3%. Early initiation of breastfeeding less than one hour after birth was 29.3%, the highest in East Nusa Tenggara 56.2% and the lowest in Maluku 13.0%. Most of the initiation of breastfeeding was done in the range of 1-6 hours after the baby was born, but still 11.1% started breastfeeding after 48 hours. 74.7% of mothers gave their babies good colostrum.

The phenomenon that occurs in most young mothers who do not breastfeed their children does not only occur in developed countries but also occurs in developing countries, namely in Indonesia, there are several factors that cause young mothers not to breastfeed their children, namely the increasing number of milk producers and breastfeeding substitutes so many mothers who believe. Another reason is the lack of awareness and knowledge of mothers about breastfeeding their babies. Lack of attention from health workers to promote the habit of breastfeeding their babies is also a factor in decreasing exclusive breastfeeding for newborns (Prasetyo, 2010).

II. METHOD

A. Tools and Materials

This study used a cross sectional method. The instrument used is a questionnaire which is a question with the results of the answer by giving signs or symbols or checking from the answer choices that have been provided.

B. Implementation Techniques

The population in this study were mothers who had babies aged 0-6 months. Samples with purposive sampling technique of 50 respondents. The inclusion criteria in this study were: 1) infants aged 0-6 months; 2) babies who are exclusively breastfed; 3) breastfeeding mothers who are willing to become respondents by filling out a questionnaire. The mother will answer questions through questionnaires about exclusive breastfeeding and diarrhea. Questions are arranged using two alternative answers, namely Yes and No.

III. RESULTS

A. Frequency Distribution

1. Exclusive breastfeeding

Table 3.1. Distrubution the frequency of exclusive breastfeeding

No	ASI	Total	Presentase (%)
1	High	9	18
2	Enough	19	38
3	Low	22	44
	Total	50	100

The table above shows that out of 50 mothers who have babies aged 0-6 months, it is known that mothers who give exclusive breastfeeding are high, namely 9 mothers (18%) and those who provide sufficiently exclusive breastfeeding are 19 mothers (38%). The remaining 22 mothers (44%) with low yields in exclusive breastfeeding.

2. Diarrhea

Table 3.2. Distribution of frequency of acute diarrhea

No	Diarrhea	Total	Presentase (%)
1	High	38	76
2	Low	12	24
	Total	50	100

Based on the table above, it shows that 50 mothers who have babies aged 0-6 months, it is known that the incidence of diarrhea in infants is still high with 38 babies with a percentage of 76% and the incidence of diarrhea in infants is still low with 12 babies (24%).



B. Analisis Hubungan Pemberian ASI Eksklusif dengan Angka Kejadian Diare

1. Hubungan Pemberian ASI EKsklusif dengan Angka Kejadian Diare Akut pada Bayi

Pemberian ASI	Angka Kejadian Diare		P value	OR	95% CI	
	High	Low			Lower	Upper
	f (%)	f (%)				
GOOD	64,3	35,7	0,029	0,180	0,035	0,934
BAD	90,9	9,1				

The results above show that the correlation value between exclusive breastfeeding and the incidence of acute diarrhea in infants is a significance value = 0.029 where the significance value is <0.05. These significant results can be concluded that there is a significant relationship between exclusive breastfeeding and the incidence of acute diarrhea in infants, and the result is OR (Odd Ratio) = 0.180. It can be concluded that mothers who do not exclusively breastfeed their babies will experience diarrhea 0.180 greater than mothers who exclusively breastfeed their babies.

IV. DISCUSSION

1. Exclusive breastfeeding for babies

The results showed that the majority of mothers giving exclusive breastfeeding were still low as many as 22 respondents (44%). This can be due to the low education of mothers, namely the majority of mothers have primary and junior high school education, as well as a lack of information about the importance of exclusive breastfeeding. Due to the lack of socialization of health education from

health centers about the benefits of exclusive breastfeeding, many mothers have already provided additional food or drink to their babies.

Based on Nurrohmah’s research (2016), the level of education greatly affects mothers in exclusive breastfeeding, the higher the education of a mother, the better exclusive breastfeeding for their babies. Sjarif, et al (2011) stated that exclusive breastfeeding is recommended for 6 months, followed by complementary feeding until the age of 2 years. Sulistyoningsih (2011) adds that until the age of 6 months, the baby’s nutritional needs are fulfilled from breast milk without adding other food or drinks, because breast milk contains all the nutrients a baby needs in the first 6 months of life. Breast milk is the ideal nutrient needed for optimal baby growth and development. The Indonesian Ministry of Health (2017) states that mothers should give colostrum to babies after the baby is born. Colostrum has benefits for babies as a nutrient and immune substance for babies. In giving ASI should be given from both breasts of the mother.

2. Incidence of Acute Diarrhea in Infants

The results showed that the majority of respondents had a high incidence of diarrhea in their infants, namely 38 respondents (76%). This is because many mothers provide additional food and drink to their babies before the age of 6 months. Diarrhea is a major cause of illness and death in infants. Kurnia, et al (2015) stated that diarrhea is a state of excessive fluid and electrolyte loss that occurs due to the frequency of one or more bowel movements in the form of watery or liquid stools. Astari (2013) states that the incidence and death rate of diarrhea in infants in developing countries is still high, especially babies who have been given additional food or formula milk. For babies who are given exclusive

breastfeeding, the incidence of diarrhea is less because breast milk contains antibodies that formula milk does not have.

The conclusion is that most mothers have given additional food and drink or formula milk to their babies before the age of 6 months. So that the nutrition in the baby is not fulfilled and the baby's immune system is low, so that the digestive system infection disorders are higher.

3. The relationship between exclusive breastfeeding and the incidence of acute diarrhea in infants

The bivariate results show that there is a relationship between exclusive breastfeeding and the incidence of acute diarrhea in infants. Puspitasari (2014) states that exclusive breastfeeding is that babies are only given breast milk without additional fluids, such as formula milk, oranges, honey, tea water, water, and without the addition of other solid foods. Exclusive breastfeeding is recommended for a period of at least 6 months. Because in breast milk there are various kinds of nutrients that are very good for babies. The increasing use of formula milk for baby food can cause various health problems such as diarrhea.

Generally, diarrhea in babies comes due to digestion of bacteria in babies. The source can be from lack of hygiene when making formula milk and allergies to cow's milk protein, Arini (2012). Research conducted by Azizah (2012) states that breast milk is a safe and clean intake for babies and contains important antibodies in colostrum, so it is very unlikely that germs can enter the baby's body. The role of breast milk will not be able to be replaced by formula milk, such as the role of bacteriostatic, anti-allergic or psychosocial roles.

This study also supports the researcher Puput (2011) who states that

there is a relationship between exclusive breastfeeding and the incidence of acute diarrhea in infants. Babies who are not exclusively breastfed will experience diarrhea more often than babies who are exclusively breastfed.

V. CONCLUSION

The research that has been done can be concluded that exclusive breastfeeding for infants 0-6 months in this study is still poor. The incidence of acute diarrhea in infants due to not exclusively breastfed is very high. This means that there is a significant relationship between exclusive breastfeeding and the incidence of acute diarrhea in infants, especially those aged 0-6 months.

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