



The Quality, Quantity and Age of Giving Breastfeeding for Toddlers in Relation with Nutritional Status

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Abstract

Malnutrition is one of the main causes of malnutrition. Globally, poor nutritional status is one of the causes of under-five mortality. The purpose of this study was to analyze the effect of the quality, quantity and age of providing complementary food for breast milk in relation to the nutritional status of children. This study was an observational study with a cross sectional study design. The population of toddlers aged 7-24 months is 344 toddlers, a sample of 77 toddlers. Data retrieval is using simple random sampling technique using Slovin formula. The results are showed that the three independent variables affected the nutritional status of children. The obtained is p-value (0.001) quality, (0,000) quantity and age (0,000). Based on the results of the study, it can be concluded that there is a relationship between the quality of complementary food for breast milk to the nutritional status of children with ap value of 0.001 ($p < 0.05$), there is a relationship between the quantity of complementary food for the nutritional status of children with p value amounting to 0,000, and there is a relationship between the age of providing complementary food for breast milk to the nutritional status of children with ap value of 0.000. This research is expected to benefit the community. For information on the program of dissemination and counseling on the quality and quantity of complementary feeding for mother's milk the which is good in the family and the impact the caused by nutritional problems in infants.

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INTRODUCTION

Malnutrition becomes a health problem generally occurs in young children because it is a vulnerable group of nutrition. Nutritional status is influenced by several factors, including the adequacy of the level of nutrition and food security (Natalia LD et al., 2013). One of the direct causes of the child does not get balanced nutrition, namely Complementary feeding (MP-ASI) are not eligible at the age of 6-24 months (Setiawati, 2016).

Based on the results of Nutritional Status Monitoring (PSG) Central Java province in 2016 the nutritional status of children aged 0-23 months based index of BB / U ie, cases of malnutrition of 10.5%, 2.7% severe malnutrition (MoH, 2016).

Based on the indicators Weight Loss by Height (W / H, Z-score) the prevalence of underweight toddlers and very thin in 2018 in Indonesia by 10.2% ,. This has included a serious public health problem by the WHO in 2018.

Infant Mortality Rate (IMR) in Indonesia reached 34 / 1,000 live births. IMR in Central Java province in 2015 as much as 10/1000 live births. IMR in Pekalongan City in 2016 as many as 12.36 / 1,000 live births. Data Riskesdas 2013, the prevalence of children malnutrition and undernourishment in Indonesia reached 19.6%. This figure increased in comparison with the data Riskesdas 2010 amounted to 17.9% and Riskesdas 2007 (18.4%). Malnutrition children in the province of Central Java in 2015 as many as 922 cases. The incidence of malnutrition in Pekalongan by indicators BB / U 2016 also increased from the previous year of 355 (1.60%) in 2016 and 377 (1.72%) in 2017.

Based on the phenomenon in the field, 6 of the 10 mothers of children aged 7-24 months give breastfeeding in infants aged less than six months. The results of the initial survey of 10 mothers of infants aged 7-24 months, there are 3 babies with poor nutritional status with the quantity giving breastfeeding poorly, where

mothers only give breastfeeding in the baby when the baby wants it.

One of the main causes of malnutrition in children under five is ignorance about how feeding (Kandowangko H et al., 2019). Another factor affecting the nutritional status of children is accompanying diseases, low birth weight (LBW), the completeness of immunization and the provision of breastfeeding (Complementary feeding) early (Novitasari, 2012).

The provision of early breastfeeding in infants aged <6 months should not be done because the food is not digested properly. This can lead to digestive disorders, the incidence of gas, and constipation (Genting et al., 2010).

This study aimed to analyze the influence of the quality, quantity and age giving breastfeeding relation to the nutritional status of children in Puskesmas Tirta Pekalongan.

METHODS

Observational study with cross sectional design. The population of children aged 7-24 months a number of 344 infants. Sample of 77 toddlers using simple random sampling technique. Primary data were obtained from mothers of infants to determine the age of the provision of breastfeeding. Nutritional status index (W / A) was measured using the steelyard. The quality and quantity of breastfeeding was obtained from questionnaire includes 24-hour food recall includes the consumption of energy, protein, fat and carbohydrates. Interviews quality complementary feeding is used to determine what foods consumed by infants in the last 24 hours, while the quantity of MP-ASI interview in use laneways know how many meals in a day and how many doses every meal. Secondary data were obtained from monthly reports SKDN, IHC, and malnutrition in 2018 to determine the number of children aged 7-24 months. Analysis of the data in this study using Chi Square test.

RESULTS AND DISCUSSION

The study, of 77 respondents describe characteristics of data, including quality, quantity and age giving breastfeeding relation to the nutritional status of children.

Table 1. Relationship quality complementary feeding with infant nutritional status.

Quality Breastfeeding	Toddler Nutritional Status						p-value
	Less		Well		Total		
	f	%	f	%	f	%	
Not as needed	16	42.1	4	10.3	20	26.0	0.001
According to the needs	22	57.9	35	89.7	57	74.0	
Total	38	100	39	100	77	100	

Based on the results in Table 1 shows the majority of respondents to the quality of breastfeeding as needed have good nutritional status a total of 35 infants (89.7%), whereas respondents with the quality of breastfeeding that do not fit their needs and have a good nutritional status as much as 4 toddler (10.3%).

Results obtained chi square test p-value of 0.001 (p <0.05), which means that the quality of breastfeeding associated with infant nutritional status in Puskesmas Tirta Kota Pekalongan. Based upon the findings in the field, some mothers or caregivers only provide breastfeeding in infants regardless of the type or variety of food needed. A healthy snack such as fruit and biscuits are also rarely given. Toddlers often eat sugary foods before the age of 1 year, such as crackers and a light snack or ciki. The quality of a good breastfeeding containing nutrients such as energy, protein, fats, and carbohydrates.

In line with the research Sulistyorini (2015) children who get breastfeeding is not according to age are at risk of having poor nutritional status. According to the study (Rini et al., 2017) lack of energy and protein intake in children can be caused by eating a little toddler. Research (Adani V et al., 2016) says rice, bread

and porridge are carbohydrates that are often consumed by babies and toddlers. Diverse food consumption can reduce the risk of shortage of certain nutrients to a person. Pahlavi (2012) also says the level of energy and protein intake affects the nutritional status.

Table 2. Relations quantity of breastfeeding with infant nutritional status.

Quantity breastfeeding	Toddler Nutritional Status						p-value
	Less		Well		Total		
	f	%	F	%	F	%	
Not suitable	30	79.8	7	10.3	37	26.0	0.000
AKG In accordance AKG	8	21.1	32	82.1	40	74.0	
Total	38	100	39	100	77	100	

Table 2 shows the majority of respondents to the quantity of breastfeeding is not appropriate AKG (Nutrition Adequacy Score) had malnutrition as many as 30 infants (79.8%) on the contrary respondents with appropriate complementary feeding quantity AKG have malnutrition as much as 8 toddlers (21 , 1%).

Results obtained chi square test p value of 0.000 (p <0.05), which means that the quantity of breastfeeding associated with infant nutritional status in Puskesmas Tirta Pekalongan. Based on the findings in the field the majority of mothers breastfeeding in infants in accordance with the needs of children with a frequency of providing food 3-4 times a day, but do not pay attention to the amount of dosage as needed toddlers. Children prefer to eat snacks that do not meet the RDA nutritional value. The quantity of breastfeeding that do not fit the AKG may result in malnutrition.

Infant feeding is done generally with a frequency of between 2 to 3 times per day (Jumirah et al., 2018). According to (Listiwati & Agustina, 2012) the frequency of breastfeeding are effective and in accordance

with the child's condition will give an uncontrolled impact the nutritional status of children. The more frequent administration of breastfeeding given will affect the nutritional status and improve the child's weight.

Table 3. Relations Award age breastfeeding with infant nutritional status

administra tion	Toddler Nutritional Status						p- value
	Less		Well		Total		
Breastfeedi ng	f	%	f	%	f	%	
Not exactly	31	81.6	13	33.3	44	57.1	0,000
Right	7	18.4	26	66.7	33	42.9	
Total	38	100	39	100	77	100	

Based on Table 3 shows the majority of respondents to the provision of breastfeeding age who do not exactly have malnutrition as many as 31 infants (81.6%), whereas respondents with age appropriate provision has good nutritional status were 7 infants (18.4%).

Results obtained chi square test p-value of 0.000 ($p < 0.05$), which means that the age of the provision of breastfeeding associated with infant nutritional status in Puskesmas Tirta Pekalongan. Based on the findings in the field the majority of mothers breastfeeding in infants with age not on time of less than 6 months. This is due to the mother or caregiver assumed that if children are given food from an early age it will be faster fat and no fuss. Whereas the provision of breastfeeding is not timely impact on the child's digestive development. Toddlers given breastfeeding <6 months are likely to have malnutrition.

According to Maseko & Owaga (2012) infant feeding to consider the timeliness of administration, frequency, type and amount of food, and how to manufacture. Mukhopadhyay et al., (2013) the practice of giving breastfeeding at age is not exactly common in children who are malnourished. The provision of early breastfeeding has health risks, causing the growth and development of infants being distracted (Mulyani & Minarti 2013).

This study was supported by research kalsum (2015) stating that there is a relationship between the first administration breastfeeding and nutritional status of children aged 7-36 months with a p-value = 0.005.

Multivariate analysis with logistic regression test, which is to see the relationship between the dependent variable and all independent variables.

Table 4. Influence the quality, quantity and age provision of breastfeeding on infant nutritional status

variables	P-value	Sig.
Quality	0.001	0003
breastfeeding	0.000	0001
Quantity	0.000	0032
breastfeeding		
Age		
Award		
breastfeeding		

The results in Table 4 show that the variable quality of breastfeeding has the most dominant influence with sig (0003), followed by breastfeeding Quantity factor with sig (0.001) and age factors Giving breastfeeding with sig (0032). Table 4 shows that the three independent variables affect the nutritional status of children.

The lack of variety in food consumption is a problem which affects the nutritional status of children (Roess A et al., 2018). Research (Widiyawati et al., 2016) reported no significant relationship between the frequency of breastfeeding and nutritional status of children. The frequency of breastfeeding enough that is 3 times or more to meet the consumption of food and nutrients required in accordance with the age of the child (Depkes RI., 2010).

According to WHO the provision of breastfeeding at 6 months of age, the frequency of eating 2-3 times a day aged 6-8 months, increasing to 3-4 times a day ages 9-12 months and 12-24 months. Extra snack or snacks (snacks) nutritious (such as a piece of fruit or bread) was administered 1-2 times per day. The

frequency of breastfeeding infants should as often as possible because a child can consume foods little by little while the need for calories and other nutrients must be met (Widiyawati et al., 2016). This study is in line with the opinions Rohmani (2010) which says that the MP-ASI type given to children should be phased in density according to age.

According to the study (Wahyu et al., 2012) states that the cause of malnutrition is not simply due to the amount of food that does not fit, but also because of the disease. Children who get enough food intake but often suffer from ill be malnourished.

According to the study (Lestari et al., 2012) malnutrition in children aged 1-3 years is more common in children who were given early breastfeeding (33%). There was a significant correlation between the age of early administration of breastfeeding and nutritional status of children aged 4-24 months (Ciptaningtyas et al., 2012).

CONCLUSIONS AND SUGGESTIONS

Based on the research results, it can be concluded there is a relationship between the quality of breastfeeding on the nutritional status of children with p value of 0.001 ($p < 0.05$). There is a relationship between the quantity of breastfeeding on the nutritional status of children with p value of 0.000. There is a relationship between age giving breastfeeding on infant nutritional status with p value of 0.000.

Mothers who have children aged 7-24 months are expected to pay attention to breastfeeding given to the quality and quantity. Good breastfeeding containing energy, protein and fat suit Nutrition Adequacy Score (AKG). Health agencies recommended forming a cadre of breastfeeding and to cooperate with the health center to do counseling as needed breastfeeding infants.

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