

Relation between Food Security and Breastfeeding and Feeding Practices with the Event of Stunting to Children in Poor Family in Langkat Regency

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ABSTRACT

Stunting is one of the health and nutritional problems that are often experienced by toddlers as a result of not fulfilling food intake for a long time, causing toddlers' height to be inappropriate for their age. In 2021 the prevalence of stunting in Indonesia is 24.4 percent. Langkat Regency is one of the regencies in North Sumatra, where stunting is a health and nutrition problem with a prevalence of 31.5 percent. This study aims to analyze the relationship between food security and breastfeeding and feeding practices with the incidence of stunting under five in poor families in Langkat Regency. This research is a quantitative study with a cross sectional design with a sample of 238 children under five. The results showed that there was a relationship between food security ($p < 0.001$) and the practice of breastfeeding and food ($p < 0.001$) with the incidence of stunting under five. Suggestions for this research to health workers are expected to carry out health education about healthy and nutritious food intake and mothers are expected to be able to fulfill healthy and nutritious food intake for toddlers so that toddlers' growth and development are optimal.

KEYWORDS

food security; breastfeeding; food practices and stunting

INTRODUCTION

One of the factors that hinders national development is poverty. According to the Central Statistics Agency, poverty is the inability of the community in the economic aspect to meet basic food and non-food needs as measured by expenditure. The poor conditions experienced by the community lead to a decrease in the Human Development Index (IPM) where the Human Development Index (IPM) is an indicator that can determine the high or low quality of human resources (Meriyanti, 2015).

The poor population in Indonesia will reach 26,503.65 million in 2021 with a Human Development Index (HDI) of 72.79 percent. Although the prevalence of the Human Development Index (HDI) is quite high, Indonesia is still below the Human Development Index (HDI) of other countries and is ranked 107th out of 189 countries in 2020 based on the United Nations Development Program (UNDP). One of the impacts of poverty is the decline in the health status of the community. People with poor conditions will find it difficult to obtain diverse and nutritious food intake so that it will affect their health and nutritional status.

Nutritional problems in toddlers are a major health problem of concern in the world. This problem is packaged with the term triple burden of malnutrition which consists of wasting with a worldwide prevalence of 2.1 percent, overweight with a worldwide prevalence of 5.6 percent and stunting with a worldwide prevalence of 22 percent with a total of 149.2 million. The main nutritional problem in children under five in the world (WHO, 2020). Stunting is

a nutritional problem as a result of non-fulfillment of nutritional intake during the period of pregnancy until a child is born which causes growth failure so that height is not in accordance with age which can be seen physically when the child is under five.

Fulfillment of nutritional intake in toddlers can be obtained through food available in the family which is called food security. Based on Law Number 18 of 2012 concerning Food, it is stated that food security is a condition where food is easily, safely, sufficient and nutritious so that it is able to meet the nutrients for households every day. Food security is related to food availability as an indirect cause of stunting in toddlers. Fulfillment of food intake for toddlers is also inseparable from the role of parents in the practice of breastfeeding and food where breastfeeding and adequate food for toddlers can prevent health and nutrition problems, especially stunting. Based on research by Fadzila and Tertiyus (2019), it is stated that food security is related to the incidence of stunting in toddlers where food insecure households have more stunting toddlers. Family food security and parenting, which determine nutritional adequacy and are strengthened by poverty coordination, are strategies to accelerate stunting reduction (Hidayat and Erllyn, 2021). Rahman's research (2018) regarding the practice of breastfeeding and food related to the incidence of stunting in toddlers.

Langkat Regency is one of the regencies in North Sumatra Province with a fairly high prevalence of stunting at 31.5 percent and is one of the regencies that is the locus for stunting prevention in North Sumatra. Based on the results of the preliminary survey, it was found that the prevalence of under-fives who experienced stunting was 62.12 percent experiencing food insecurity due to the inability of families to meet sufficient and varied food every day. The practice of giving breast milk and food was obtained by toddlers who did not get exclusive breastfeeding by 76.36 percent and 26.06 percent gave early MP ASI to toddlers, even parents let toddlers eat foods containing MSG every day. Based on this, this study was conducted to analyze the relationship between food security and breastfeeding and feeding practices with the incidence of stunting under five in poor families in Langkat Regency.

RESEARCH METHODS

This study use a quantitative research with a cross sectional study design. The population in this study were children under 5 years old who came from poor families who were beneficiaries of the Family Hope Program. The sample of this study were toddlers aged 24-59 months who came from poor families who were beneficiaries of the Family Hope Program, as many as 238 people.

Data Collection Methods

Primary data

Primary data were obtained directly from the results of interviews using questionnaires and observations by researchers directly to respondents regarding stunting.

Secondary data

Secondary data was obtained from stunting data in toddlers obtained from Langkat Regency Health Office in 2020.

Operational Definition

1. Stunting is the result of measuring body length for age (PB/U) or height for age (TB/U) in toddlers with a z-score of less than minus two standard deviations so that it can be concluded that body length or height is not in accordance with age and cause toddlers to fail to thrive.

2. Food security is a condition where food is fulfilled by the state to individuals as reflected by the availability of sufficient food, in terms of quantity, quality, safety, diversity, affordability and does not conflict with religion and culture in order to live a healthy and productive life.
3. The practice of breastfeeding and food is a habit or action taken to meet the needs of breast milk and food in toddlers which consists of the type of food given, the timing of breastfeeding and food, the frequency of breastfeeding and food and the efforts or methods taken in feeding the toddler.

Data Analysis Method

Univariate Analysis

All research variables were conducted to obtain a summary of food security, breastfeeding and feeding practices, and stunting events, which were presented in the form of a frequency distribution table.

Bivariate Analysis

Analysis Bivariate analysis can help you understand the relationship between the independent variables (food security, breastfeeding, and feeding practices) and the dependent variable (incidence edit). Because the data is explicit, the analysis technique of choice is chi square. If the p value is 0.05, it indicates that the two variables have a significant relationship.

RESULTS AND DISCUSSION

Univariate Analysis Results

Distribution of the frequency of food security, breastfeeding and feeding practices and the incidence of stunting in poor families in Langkat Regency.

Table 1. Univariate analysis results

Variable	N=100	Percentage (%)
Food security		
Food Resistant	31	13,0
Food insecurity	207	87,0
Breastfeeding and Food Practices		
Well	37	15,5
Not good	201	84,5
Stunting Incident		
Normal	137	57,6
Stunting	101	42,4

In the food security variable, it was found that from 238 respondents it was known that there were 207 families experiencing food insecurity and there were 31 families experiencing food security in poor families in Langkat Regency. Based on the variables of breastfeeding and feeding practices, 201 respondents had poor breastfeeding and food practices and 37 respondents were known to have good breastfeeding and feeding practices. Based on the variable incidence of stunting, it is known that 101 respondents experienced stunting and as many as 137 respondents were known to have normal height.

Bivariate Analysis Results

The relationship between food security and breastfeeding and feeding practices with the incidence of stunting under five in poor families in Langkat Regency.

Table 2. Bivariate analysis results

Variable	Diarrhea Incident						p. value	RP (95% CI)
	Normal		Stunting		Total			
	n	%	n	%	n	%		
Food security								
Food Resistant	111	53,6	96	46,4	207	100	0,001	0,222 (0,082-0,602)
Food insecurity	26	83,9	5	16,1	31	100		
Breastfeeding and Food								
Less Good	104	51,7	97	48,3	201	100	0,0001	0,130 (0,044-0,380)
Good	33	89,3	4	10,8	37	100		

The results of the chi-square test showed that two independent variables, namely food security and the practice of breastfeeding and food were significantly related to the incidence of stunting. This is indicated by the sig-p value of the two variables is 0, whose p value is smaller than 0.05.

The Relationship of Food Security with Stunting Incidence

The results of the descriptive analysis prove that food security in the family as many as 207 respondents (87.0%) respondents experienced food insecurity and as many as 31 respondents (13.0%) respondents were food insecure. The results of statistical analysis using the chi-square test obtained a value of $p = 0.001$ ($p < 0.05$) so that statistically it can be interpreted that there is a relationship between food security and the incidence of stunting under five in poor families in Langkat Regency. The prevalence ratio value is 0.222 which means that families who have food security are at 0.22 times less risk or 78% reducing the risk of stunting in children under five. Respondents with food insecurity are known as 96 respondents (46.4%) have toddlers who experience stunting.

The results of this study are in line with research conducted in Bangladesh which states that families with food insecurity conditions are more likely to have stunted children than families with food insecure conditions. Then in line with Wado's research (2019) which also states that food security has a relationship with the occurrence of stunting in toddlers with a higher number of stunting in families with food insecurity conditions. Wado (2019) states that adequate food with certain nutrients that are also sufficient for toddlers can overcome stunting in toddlers aged 0-59 months.

One of the causes of nutritional problems that occur in Indonesia is the low food security in the family (Supariasa, 2013). Based on Law Number 18 of 2012 concerning Food, food security can be defined as the availability of sufficient, safe and quality food in a country to individuals and does not conflict with religion and culture in the community. Family food security is a condition of the availability of food for all family members so that they can meet the daily nutritional intake of the family. According to UNICEF (2013), food security is an indirect cause of nutritional problems in toddlers, especially stunting. This is due to the condition of toddlers who do not meet their nutritional intake so that toddlers experience food shortages. Toddlers who experience a lack of food will not be able to meet the nutritional intake needed for toddlers so that toddlers will experience nutritional problems including stunting.

Food security is an effort to obtain good nutritional status for a person, especially toddlers who continue to grow and develop, where the more food security a family is, the more fulfilled the family's nutritional intake. The absence of access to food and the absence of the community's ability to buy food are the causes of the unavailability of food in the household so that families are unable to meet their food needs (Saraswati, 2021).

Based on Sudaryati's research (2021), 58.3 percent of children under five are malnourished with food insecure families. Food insecurity experienced by families can affect food consumption so that if it lasts for a long time, it can cause families, especially toddlers, who are a vulnerable group to experience the nutritional deficiencies needed and can inhibit growth in toddlers. Availability of food can affect food intake and to meet food intake, parents must be wise in paying attention to the provision of food such as the food given must be varied so that many nutrients are met, sufficient, not rotten and in accordance with the age of toddlers so that food intake can be fulfilled.

Based on the research, the condition of food security according to the Food Security Service in Langkat Regency based on the availability of food is sufficient to meet the needs of the community, but the poverty experienced by the community is one of the causes of low food security in certain areas due to economic difficulties so that the community is limited in accessing or purchasing food. Respondents are always worried about getting food with the conditions of poverty experienced. The ability to buy food is also limited, so that people are only able to provide food with a makeshift menu without thinking about the nutritional content. Daily food can also be obtained by borrowing from neighbors, even parents, especially mothers, always reduce the amount of food so that children and the head of the family can eat in sufficient quantities even with a modest menu. In addition, if the food supply decreases and there is not enough money to buy food, the amount of food and the frequency of eating for one family will be reduced.

Relationship between Breastfeeding and Food Practices with Stunting Incidence

The descriptive analysis findings show that the practice of breastfeeding and food as much as 201 respondents (84.5%) of respondents is not good and as many as 37 respondents (15.5%) of respondent practice of breastfeeding and good food. The results of statistical analysis using the chi-square test yielded p value = 0.001 (p 0.05), indicating statistically that there is a relationship between breastfeeding and feeding practices with the incidence of stunting under five in poor families in Langkat Regency. The prevalence ratio value is 0.130 which means that the practice of breastfeeding and food is 0.130 times less risky or 78% reduces the risk of stunting in children under five. Respondents with breastfeeding and feeding practices are known to be 97 respondents (48.3%) have toddlers who experience stunting.

The results of the study are in line with Rahman's research (2018) which states that breastfeeding and food are associated with stunting in toddlers where breastfeeding given to toddlers from zero months of age is able to prevent stunting and giving good food to toddlers will reduce the risk of stunting in toddlers. Rahman (2018) continued that breastfeeding can prevent toddlers from experiencing infectious diseases. Infectious diseases can cause toddlers to experience a decrease in appetite so that they can cause toddlers to experience malnutrition. Therefore, breastfeeding that is carried out since toddlers aged zero to two years is able to prevent nutritional problems and is able to increase the toddler's immune system so that they are able to receive food intake which is of course with the nutritional content needed by toddlers.

Research conducted in Bangladesh states that breastfeeding and food must be accompanied by mother's knowledge about the importance of breastfeeding and food for toddlers. The higher the mother's knowledge of breastfeeding and food, the better the mother's behavior in giving breast milk and food to toddlers so that it is easier to overcome stunting problems that are generally experienced by toddlers.

Breastfeeding alone for infants can be given until the age of six months. Although some people have concerns that toddlers will not be full if only given breast milk, the nutritional

content in breast milk is able to complete the nutritional needs of toddlers even without being given additional food. Over time, from the age of six months onwards, toddlers may be given food and begin with complementary feeding. As children get older, the need for nutrition also increases to support their growth and development. Therefore, feeding must be given by paying attention to the nutritional content so that the nutritional intake needed by toddlers can be met (Langi, 2020).

Efforts to provide food based on research, most mothers allow toddlers to eat food from outside that contain MSG because mothers of toddlers think that toddlers are very appetizing with foods that contain MSG so there is no day without buying snacks or foods containing MSG. This is also done by mothers so that toddlers still want to eat when toddlers don't have an appetite even though they are not foods that contain good nutrients for toddlers.

The practice of breastfeeding and feeding children under five in this study was found to be mostly poor. One of the causes of this condition is the condition of poverty experienced by the community. The inability of the community to obtain good food or in accordance with the nutritional content needed causes toddlers to often experience nutritional deficiencies, not only toddlers but all family members also experience it. The low economy in the community causes mothers of toddlers to only be able to provide makeshift food or those that are in accordance with financial conditions, even family members often skip meals because the food processed is limited.

CONCLUSION

Food security and breastfeeding and feeding practices each have a significant relationship with the incidence of stunting under five in poor families in Langkat Regency. This is indicated by the sig-p value of each variable is $0.001 < 0.05$.

Suggestion

1. It is recommended for health workers to carry out education regarding the importance of fulfilling healthy and nutritious food intake to increase growth as an effort to prevent and control stunting events experienced by toddlers.
2. Parents are advised to allocate a budget from income to meet food needs and pay more attention to feeding practices for toddlers so that the nutrients needed by toddlers to increase growth can be met.
3. To other researchers, it is recommended to conduct similar research with a wider research scale to get more accurate results of the latest research.

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