

ANALYSIS OF THE SITUATION OF UNDERNUTRITION AND MALNUTRITION ON TODDLERS

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ABSTRACT

Children under five years are vulnerable to health and nutrition problems. The first two years period of life is a critical phase because growth and development of the children during this period. The purpose of this study is to analyze the situation of malnutrition in toddlers in nutritionally vulnerable districts. This study is a descriptive study using a cross-sectional approach. There are 10 respondents from Puton Village, Diwek District, and Jombang Regency as the samples of the study. The data was collected from August until September 6, 2019. The samples were collected by using a total sampling method. The dependent variables in this study are nutritional knowledge, infectious disease, and eating habits. Meanwhile, the independent variables are undernutrition and malnutrition. The data was analyzed using Chi-Square. The results of the study showed that the most influential factors on the occurrence of undernutrition and malnutrition were almost entirely (76%) influenced by eating habits, very few (15%) influenced by nutritional knowledge and very little (9%) influenced by infectious diseases. Problemsolving in nutrition programs must be developed innovatively at the regency level with indirect intervention at the regency level, through strengthening the health and nutrition system by involving the community, local government and related sectors.

Keywords: *Situation Of Undernutrition, Malnutrition, Toddlers*

INTRODUCTION

Children under five years are vulnerable to health and nutrition problems. The first two years of life is a critical phase because of the growth and development of the children during this period. Good nutrition is the foundation of health that can affect immunity, susceptibility to disease, and physical and mental growth and development. Good nutrition will reduce morbidity, disability and death to improve the quality of human resources. The first two years of life are critical because of the rapid growth and development that occurred during this period. Nutritional disorders that occur in this period are permanent cannot be recovered even though nutritional needs in the next period are met (Susanti, 2018).

Undernutrition is one of the diseases caused by nutrition which is still a problem in Indonesia. The nutritional problem in toddlers can influence the quality of the human resources; hence if not addressed, it can lead to a lost generation. Malnutrition can cause failure in growth increase mortality, morbidity, and disease in the nutritionally vulnerable age group, namely toddlers. Undernutrition or malnutrition is the cause of death for 3.5 million children under the age of five (toddlers) in the world (Fauziah, 2016).

The problem of malnutrition and undernutrition does not seem to have been adequately resolved on a national and international scale. The record states that 101 million children in the world under five years of age suffer from malnutrition. In Indonesia, there has been almost no progress in reducing the level of child nutrition since 2007, with 18.4% of Indonesian children under the age of five suffering from malnutrition.

The factors that are related to the malnutrition status of the toddler are: 1) the mother's nutritional knowledge 2) infectious disease, 3) eating habits (Mubarak, 2018).

Efforts that can be implemented to suppress the nutritional problem is by implementing the innovation program of Star-studded Jombang Regency (Together Overcome Malnutrition). The program consists of two activities, namely

Therapeutic Feeding Center (TFC) and Taman Pemulihan Gizi (TPG) or Nutrition Restoration Park. Other strategies that can be performed are Public health centre revitalization and growth and development monitoring in Integrated Healthcare Center (Posyandu) (Kalsum, 2015).

METHODOLOGY

The type of research used is descriptive with a cross-sectional approach. The design analyzes the causal relationship using inverse logic, namely determining undernutrition and malnutrition first and then identifying the causes (risk factors), including knowledge of nutrition, infectious diseases and eating habits. Exposure history in this study can be obtained from the medical register or based on interviews with research respondents.

The population in this study was all children under five with undernutrition and malnutrition in Puton Village, Diwek District, Jombang Regency, with 10 toddlers. The sample of this study was children under five with undernutrition and malnutrition, with 10 children under five years old. The sampling technique used in this research is total sampling. The dependent variable in this study was undernutrition and malnutrition. The independent variables in this study were knowledge of nutrition, infectious diseases and culture of eating habits.

RESULT

Table 1: The characteristic of the mothers of toddlers with undernutrition and malnutrition

Sample Characteristic	Puton Village	
	Frequency	Percentage (%)
Education Level:		
Didn't go to school	0	
Primary	2	20
Middle	7	70
High	1	10
Occupation:		
Does not work	9	90
Work	1	10
Family Dependents:		
Does not have	3	30
Have	7	70

Based on table 1, it shows that all mothers of children under five have secondary education. Almost all mothers of toddlers are not working. Almost all mothers of toddlers have family dependents

Table 2: Respondents distribution based on the toddlers' nutritional status

Nutritional Status	f	%
Undernutrition	8	80
Malnutrition	2	20
Total	10	100

Based on table 2, it can be seen that almost all (80%) of the nutritional status of children under five are undernourished and very few (20%) of the respondents are malnourished.

Table 3: The distribution of toddlers' mothers based on nutritional knowledge

Nutritional Knowledge	f	%
Good	4	40
Enough	4	40
Insufficient	2	20
Total	10	100

Based on table 3, it can be seen that a small portion (40%) of the toddlers' mothers with good and sufficient knowledge of nutrition.

Table 4: The distribution of toddlers' mothers based on eating habit

Eating Habits	f	%
Good	2	20
Not Good	8	80
Total	10	100

Based on table 4, it can be seen that almost all (80%) of toddlers' eating habits are not good.

Table 5: The distribution of toddlers' mothers based infectious disease

Infectious Disease	f	%
Happen	6	60
Does Not Happen	4	40
Total	10	100

Based on table 5, it can be seen that most (60%) children under five had infectious diseases.

DISCUSSION

Nutritional Knowledge

There is a small portion (40%) of toddlers' mothers with good and enough nutritional knowledge. The education level of the respondents from the results of the study found that 70% of the respondents had a secondary education level. The education level, especially the mother's education level, can affect the health status because it can influence the quality of childcare. A high level of education makes it easy for someone to absorb information and apply it in daily behaviour. Education is a deliberate and conscious effort to create an atmosphere and learning process to actively develop their potential and skills needed by themselves, society, nation and state. The respondent's education level is directly proportional to the knowledge possessed by the respondent because the higher the level of education, the easier it will be to capture information obtained from formal or non-formal media. Hence, the higher the mother's education level, the less the possibility of toddlers experiencing malnutrition. On the contrary, the lower the mother's education level, the greater the risk of experiencing malnutrition. Based on the research on the respondents regarding the mothers' occupation, it can be seen that more than half of the respondents are not working. When the mothers do not work, automatically, they will not get an income. Therefore, there is a possibility that they cannot meet the daily nutritional needs of toddlers. Meanwhile, the nutritional intake consumed is likely to affect the nutritional status of the toddlers. Thus, the family must monitor and provide adequate and nutritious food intake.

Eating Habits

Early in life, babies need adequate nutrition for their growth, so they can optimize their entire growth process. (Lia & Yanti, 2019). The Factors like age, weight, gender influence toddler's nutrition (Ratnawati, Lestari, & Ningtyas, 2018). Based on table 4, almost all (80%) of toddlers' eating habits are not good. A person's diet is formed from their cultural background. A society's beliefs about food impact eating habits (practices) and affect their nutritional conditions. Explains that culture and food have a close relationship. Food serves to maintain and improve the condition of the body. Consumption and serving of food are related to the culture of individuals, families and local communities. For example, in Javanese, the portion of food between children and parents is different. Dietary diversity is an important immediate determinant of stunting children. Household food insecurity can also lead to stunting, which is a major public health problem in developing countries (Komaruddin *et al.*, 2019). Culture influences individuals and families in determining the food consumed. At the study site, toddlers with undernutrition and malnutrition conditions did not meet the nutritional standards and requirements. The families and the mothers assume that if the toddlers are no longer fussy after they give them food, the mothers feel that is enough. The food provided to their toddlers is, on average, snacks containing a lot of MSG or preservatives sold in stalls or shops. The portion provided to the toddlers and the nutritional contents is far from the standard to fulfil the toddler's nutritional intake. Also the determinants of malnutrition and in children shows effective changes in immunization status of Toddlers (Maidelwita, 2019).

Infectious Disease

Most (60%) of the toddlers have an infectious disease. The study results regarding the history of infectious diseases in the last 3 months showed that most children under five were exposed to infectious diseases. Infectious diseases can worsen nutritional conditions. Moreover, poor nutritional conditions can make it easier for toddlers to get an infectious disease. Therefore, infectious diseases and nutritional conditions are reciprocal. This situation can lead to malnutrition, which causes the toddlers to have diarrhoea. It causes the toddlers to get their food intake, and much of the nutrition will be wasted and dehydrated. In addition, toddlers with ARI, which is one of the most common infectious diseases experienced by toddlers, can cause a decrease in appetite so that the intake of nutrients into the child's body is reduced. Toddlers who are exposed to infectious diseases tend to lose weight; this is due to an increase in metabolism in the toddler's body and usually followed by a decrease in appetite. Continuous weight loss can cause a decrease in nutritional status. This is in line with this research which shows that most of the malnourished children under five in Puton village are infected with infectious diseases. So, fast and accurate handling of infectious diseases in Puton Village is needed to prevent the nutritional status of toddlers from getting worse. Also, malnutrition can cause anemia among infants that leads to increase the number of infectious disease in toddlers (Levy *et al.*, 2005 & Daly *et al.*, 2014).

CONCLUSION

Prompt and proper handling of the case of malnutrition from the Public Health Center (Puskesmas) is expected to overcome the occurrence of malnutrition in Puton village. The need of increasing aspects of maternal knowledge can be used to improve the nutritional status of toddlers and the need for evaluation at least once a month to see the effectiveness of the actions and programs that have been carried out. It is necessary to conduct research on the pattern of parenting toddler by further researchers because the pattern of parenting may be a factor that is quite influential on the occurrence of cases of malnutrition. As more factors are searched, the exact cause of the malnutrition case itself becomes more apparent.

RECOMENDATION

Prompt and proper handling of malnutrition from the Public Health Center is expected to overcome the occurrence of malnutrition in Puton village. There needs to be an increase in aspects of maternal knowledge that can be used to improve the nutritional status of toddlers, and it is necessary to have an evaluation at least once a month to see the effectiveness of the actions and programs that have been carried out. It is necessary to conduct research on the pattern of the parenting of the toddlers by the following researchers because the pattern of parenting may be a factor that is exceptionally influential on the occurrence of cases of malnutrition. The more factors that are studied, the more pronounced the exact cause of the occurrence of cases of malnutrition itself.

Conflict of Interest

The authors declare that they have no competing interests in writing this article.

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