

# KNOWLEDGE OF BALANCED NUTRITION ON MOTHERS EFFECTED TO NUTRITION STATUS ON TODDLER

Siti Munawaroh<sup>1</sup> Elmie Muftiana<sup>2</sup>

<sup>1,2</sup>Faculty of Health Sciences, Muhammadiyah University of Ponorogo  
email: munaw71@yahoo.co.id

## ABSTRACT

Many factors cause malnutrition in toddler, both direct factors and indirect factors. Knowledge is an indirect factors. Knowledge of balanced nutrition has an important role because it has an impact on the ability of mothers in serving food for their babies (toddlers). This study aims to determine the relationship of knowledge about balanced nutrition and nutrition status of toddler. This study used a design of descriptive correlation. The population is all women have a toddler in the Health Center of Sukorejo, Ponorogo regency. The numbers of 104 samples were taken from 5 villages in Health Center of Sukorejo. Sampling technique is purposive sampling. The data analysis by chi –square has a significance level of  $p \leq 0.05$ . The results of this study got the p value of 0.023 which means the knowledge associated by the nutrition status of toddler. The demographic data of age and education do not have a relationship to the nutrition status of toddler. Mothers' occupation has a relationship to the nutrition status of toddler with p value of 0.031. Knowledge is the initial key occurred nutrition problems of toddler because it affects behavior and daily habits in serving food. Mothers who have poor knowledge about food has a content of balanced nutrient will have a habit of serving food incorrectly to their toddler.

**Keywords:** *Knowledge, Mother, Balanced Nutrition, Nutrition Status, Toddler*

## INTRODUCTION

Nutrition knowledge is knowledge of food and nutrients, sources of nutrients in food, safe food to eat so it does not cause disease and how to prepare a good meal so the nutrients in food do not lose, and how to be a healthy life (Notoatmodjo, 2003). Feeding in children can be influenced by the knowledge and attitude of the mothers and the support of family and the environment. Mother's knowledge and attitudes will affect food intake in the family, especially children. It was only about 62.5 % of mothers, who can practice a balanced feeding behaviour in children, 75 % have a positive attitude in providing a balanced of nutrition meals, and 54.2 % of mothers who only understand the provide of nutritious food but they can not practice well (Intansari, 2009). While toddlers are the age group who is susceptible to nutritional problems because it is a period of rapid growth and they require more nutrients. If nutrients are not fulfilled they experience nutrition problems more.

Nutritional phenomenon is now more of a serious threat because it occurred in various economic strata, education, both in villages and cities. The prevalence of thin and very thin based on weights and heights in toddlers do not go down significantly in the last 3 years, it was 13.3 % of toddlers still found thin and very thin. In 2009

found 56.941 cases of malnutrition toddlers (Silitonga, 2012). A toddler is said to have poor nutrition status if his/ her weight is 60 percent under the international standards developed by the agency of National Centre for Health Statistics, Centres for Disease Control, USA (NCHS), which has been recognized by the WHO. While the toddler is said to have malnutrition when their weight 70, 80 percent under standards of WHO NCHS. Based on WHO data in 2011, the prevalence of malnutrition toddler in Indonesia reached 13 % and the mortality rate due to malnutrition reached 54 % (WHO, 2011). Based on WHO data in 2010, 1.5 million children died due to improper feeding and 90 % of which occurred in developing countries (WHO, 2010).

Thirty nine (39) million inhabitants of East Java, there are 7.1 million poor people, where 5,000 toddlers are malnourished (Imam Utomo 2008 in Nurhidayati, 2008). Toddlers prevalence of malnutrition has increased since 2009, they are 10 % malnutrition, 2.7 % severe malnutrition, in 2010 9.3 % malnutrition, 2.5% severe malnutrition and in 2011 10.3 % malnutrition and 2 , 3 % severe malnutrition. The cause of malnutrition including poverty was 25.1 %, 28.8 % because of morbidities factors, 40.7 % due to parenting and 5.4 % due to other factors.

(Dinkes Jatim, 2012). Data in August 2013 at the health center of Sukorejo, Ponorogo regency there were 69 children malnourished under the red or yellow and two month not increase. Data in March 2015, the number of toddlers who noted there were 26 children with nutrition problems.

In the family, housewives primarily act as babysitters and managers of food consumption of family members, especially toddlers. Mother is a determinant role of an efforts of nutrition improvement of family, particularly to improve the nutrition of toddlers. Toddlers is a group of family members who belong to malnutrition where their conditions are very sensitive to the number and type of food consumed. The quality and quantity of food intake for toddlers is very dependent on the mother or babysitter (Bachfiani,2014).

The solve of the problem of malnutrition, need to be done through efforts to increase food supply, diversification of production and consumption of food, the increase of socio-economic status, education and public health, and the improvement of agricultural technology and food technology (Almatsier, 2003). However it is not easy to do if the mother's knowledge about balanced nutrition is still not good. To improve the nutrition status of toddlers

and mothers' knowledge among others by conducting a counseling to the community about nutrition, food preparations, a supply of dishes of ASI (MP- ASI) and the need for active participation of health centers and posyandu cadres . This has been done by health centre of Sukorejo Ponorogo regency, but it still needs the strong support from various elements so an increase in the incidence of nutrition problems can be reduced maximally.

## **METHODS**

This study used a descriptive correlation design. The population is all mothers have toddlers in Puskesmas Sukorejo of Ponorogo with samples that fulfilled the study criteria, that was mothers parenting toddlers her selves, come to Posyandu when the study conducted. The sampling technique used is purposive sampling with a sample of 104. The study taken from four villages in the health center of Sukorejo namely; Karanglo Lor, Gandukepuh , Prajekan and Kedung Banteng.

The instruments used are questionnaires and observation sheets. The questionnaires given to mothers who have toddlers are 30 questions about. Observation sheet used to determine the nutrition status of toddlers. Nutritional status viewed from age and weight. The data analysis used chi-square test to determine the relationship between

the two variables and a significance level of  $p \leq 0.05$ .

## RESULT

Table 1 Demographic Data Distribution of Mother in health centre of Sukorejo, Ponorogo regency.

No	Variable	Frekuensi	Percentage	Homogeneity Test Results
Age (years)				
1	Early adult (20-40)	99	95,2	chi-square test p=0,609
2	Middle adult (>40)	5	4,8	
Education				
1	Low (SD and SMP)	38	36,5	chi-square test p=0,777
2	High (SMA and PT)	66	63,5	
Employment				
1	Unemployed	71	68,3	chi-square test p=0,031
2	Employed	33	31,7	

Table 1 shows the characteristic distributions of respondents and homogeneity test results. A characteristic of respondents by age shows that the majority of respondents 20-40 years are 99 persons (92.5 %). Homogeneity test results using analysis Chi - square test  $p = 0.609$  ( $p > 0.050$ ) so it can be concluded that there is no relationship between the mothers' age and knowledge of balanced nutrition on mothers.

The characteristic of respondents by education shows that the majority of respondents were Senior High School or Higher Education that is 66 persons (63.5

%). Homogeneity test results using analysis Chi - square test  $p = 0.777$  ( $p > 0.050$ ) so it can be concluded that there is no relationship between the mother's education and knowledge of balanced nutrition on mothers.

A characteristic of respondents by occupation shows that most respondents do not work that is 71 persons (68.3 %). Homogeneity test results using analysis Chi - square test  $p = 0.031$  ( $p < 0.050$ ) so it can be concluded that there is a relationship between the mother's occupation and knowledge of balanced nutrition on mothers.

Table 2 Distribution of Mothers' Knowledge in Health Center of Sukorejo, Ponorogo

No	Knowledge	N	Percentage
1	Good	58	55,8
2	Bad	46	44,2
Total		104	100

Table 2 shows that 58 (55.8 %) mothers had good knowledge about balanced nutrition and 46 (44.2 %) had poor knowledge about balanced nutrition .

Table 3 Distribution of Nutrition Status of Toddlers in Health Center of Sukorejo, Ponorogo

No	Nutrition Status	N	Percentage
1	Abnormal	26	25
2	Normal	78	75
Total		104	100

Table 3 shows that 78 (75 %) toddler had normal of nutrition status and 26 (25 %) had toddler had abnormal of nutrition status

Table 4 Relationship between mothers' knowledge about balanced nutrition and the nutrition status of toddlers in Health Center of Sukorejo, Ponorogo

Knowledge	Nutrition Status				Total		p value
	Abnormal		Normal		N	%	
	N	%	N	%			
Good	9	15,5	49	84,5	58	100	0,023
Bad	17	37	29	63	46	100	

From the table above it can be seen that mothers who have a good knowledge and abnormal nutrition status were 9 (15.5 %), while mothers who have poor knowledge and normal nutrition status were 29 (63 %). Statistic test results obtained p 0.023, it can be concluded there is correlation of mothers' knowledge about balanced nutrition and the nutrition status of toddlers.

## DISCUSSION

Infancy is a golden period which can be a determinant of the future. Infancy is a period of brain development and rapid intelligence, so it is needed balanced and

maximum nutrition. Balanced nutrition can be influenced by the knowledge of parents, especially mothers. Lack of knowledge of nutrition and health of the parents, especially the mother is one of the causes of malnutrition in toddlers (Anggraini, 2008). This is suited by the results in table 4 that there is a relationship between knowledge on balanced nutrition and nutrition status of toddlers. According to Almatsier problem of malnutrition is generally caused by poverty, lack of availability of food, poor sanitation, lack of public knowledge about nutrition, balanced diets and health (Septiana, 2010). Knowledge is influenced by many factors

such as age, education, occupation and so on. If it is seen from table 1 job has a relationship with the mother's knowledge.

The results showed that most of mothers are not working. This causes the mother has a lot of free time to take care of her children. Mother had a lot of time to look for information about toddler nutrition. Notoatmodjo (2003) states that the work is something take time. Someone who has an important job will have more knowledge because they have more interaction with the surrounding environment. However, the information obtained can not necessarily practice well because it does not have much spare time for their toddlers. This result is as the same result as Anggraini's (2008) that one of the causes of the persistence of the malnutrition status is parents' busyness in paddy fields so they do less attention to their toddlers. There are parents who think that the money they had better saved or for other needs than to buy nutritious food for their toddlers. Supriasa states that the cause of nutrition problems are multi factorial, therefore Supriasa, et al, (2002 ) how to solve the problem of malnutrition must involve a wide range of related sectors.

According to Anwar in Almatsier, how to overcome the problem of nutrition needs to be integrated across departments and professional groups, through efforts to

increase food supply, diversification of production and consumption of food, the increase in socio-economic status, education and public health, and an increase of food technology. All these studies aim to obtain the fix of food consumption patterns are diversified and balanced in nutrition quality (Septiana, 2010)

## **CONCLUSION**

1. Most of mothers 71 (68.3 %) do not work or as a housewife and work-related to mothers' knowledge about balanced nutrition, with a value of  $p = 0.031$ .
2. Mothers' knowledge about balanced nutrition related to nutrition status of toddlers, with  $p$  value = 0.023

## **ACKNOWLEDGMENTS**

1. For health workers should always improve the increased program of knowledge by providing health education when there are community activities such as Posyandu, and community meetings.
2. Volunteers should be involved in provide of health education, because volunteers who directly deal with the public.

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