

Mother's Knowledge Correlation on Balanced Nutritional Behavior with Toddler Nutritional Status in Sukosewu Village, Gandusari District

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Abstract

Mother's nutritional knowledge determines all that the children eats. Mother's who have a good knowledge of nutrition will form a good balanced nutrition behavior for children. The behavior will affect the nutrient intake and nutritional status of children. The purpose of the study is to know the correlation mother's knowledge and attitudes on balanced nutrition with children's nutritional status in Desa Sukosewu village Gandusari district. This study employed Analytical Survey Research with Cross Sectional Design. The study was carried out on Juni 2022 in Sukosewu village. The collecting data mothers's knowledge on balanced nutrition and mother's attitude on balanced nutrition used questioner, and to collect child nutritional status data using Z-score with BB/U indikator. This study involved 68 respondents. Based on bivariate analysis were tested statistically Somers'd test, the test of the correlation mother's knowledge and attitudes on balanced nutrition with children's nutritional status in Sukosewu village Gandusari district obtained by value $p = 0.000$ which shows the correlation of mother's knowledge on balanced nutrition with children's nutritional status in Sukosewu village Gandusari district. On the test of attitudes on balanced nutrition with children's nutritional status in kindergartens Sukosewu village Gandusari district obtained by value $p = 0.000$ shows that there is correlation attitudes on balanced nutrition with children's nutritional status in Sukosewu village Gandusari district.

Keywords: *Mother's Attitudes on Balanced Nutrition, Mother's Knowledge on Balanced Nutrition, Nutritional Status*

1. INTRODUCTION

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Children are individuals who are in a range of developmental changes starting from infancy to adolescence. According to age, the developmental stages of children are divided into infant development stages (0-1 years), toddlers (1-3 years), pre-school age children (3 -6 years), school-age children (6-12 years) and adolescents (12-21 years) (Hidayat, 2008).

Nutritional status is a factor that affects the health and development of children. Good nutritional status can help the child's development process to achieve optimal. Adequate nutrition can improve the body's resistance so that it is expected that the body will be free from all diseases, while unfulfilled nutrition will cause nutritional problems in children (Setiyabudi, 2007).

The prevalence of underweight nutritional status in children 5-12 years in Indonesia is 11.2%, consisting of 4.0% very thin and 7.2% thin. The prevalence of very thin was lowest in Bali (2.3%) and highest in East Nusa Tenggara (7.8%). Nationally, the problem of obesity in children aged 5-12 years is still high at 18.8%, consisting of 10.8% fat and 8.8% very fat. East Java is one of the provinces that has a very fat prevalence above the national level. According to the Ministry of Health of the Republic of Indonesia (2010), the prevalence of overweight status in Blitar is 0.95%, undernutrition is 4.35% and malnutrition is 0.81%. Meanwhile, according to the East Java Health Office (2012) in Sukosewu Village, Gandusari District, the prevalence of undernutrition is 12% and overnutrition is 2.8%. While data from the Blitar Health Office (2016), nutritional problems can be caused by many factors. It can be directly caused by disease and low food consumption. Access to food and poor nutrition practices by mothers have resulted in low food consumption and the emergence of various diseases.

Public food consumption is still not in accordance with the general message of balanced nutrition. From the results of the 2010 Riskesdas research, it is stated that there are still many people who do not consume enough vegetables and fruits. The quality of protein consumed on average per person per day is still low because most of it comes from vegetable protein. Consumption of foods and beverages with high sugar content, high salt and high fat is still quite high (Kemenkes RI, 2014).

Mother is the determinant of the food consumed by the child. Lack of knowledge of nutrition and health of parents, especially mothers is one of the causes of malnutrition in children. A mother who is used to preparing food for family members every day must have basic knowledge and skills about a healthy and balanced diet. Frost (2010) states that balanced nutrition is food consumed daily that contains nutrients in the type and amount according to the body's needs by taking into account the principles of food diversity, physical activity and clean

living behavior and monitoring body weight regularly in order to maintain a normal weight. to prevent nutritional problems (Kemenkes RI, 2014)

Sukosewu Village is a village located in Gandusari District. The results of a preliminary study conducted in one of the villages in Sukosewu found that 27.78% of children had poor nutritional status and 5.56% of children had excess nutritional status. This study aims to determine the relationship between knowledge and behavior of mothers about balanced nutrition with the nutritional status of children under five in Sukosewu Village, Gandusari District.

2. METHODS

2.1 Data Collection Method

This research was conducted in June 2022, the method used is an analytic survey method with a cross sectional research design. The population in this study were all children under five in Sukosewu Village, Gandusari District. Subjects were selected using simple random sampling technique. The number of subjects needed in this study was 70 toddlers.

2.2 Data Analysis Method

Analysis of the data used is univariate analysis to obtain a description of the characteristics of the respondents (age, occupation, gender), knowledge and behavior of mothers about balanced nutrition using a frequency distribution table and analyzed descriptively. Bivariate analysis was conducted to determine whether there is a relationship between the independent variable (mother's knowledge and behavior about balanced nutrition) and the dependent variable (nutritional status). The type of test he uses is the Sommers'd test. All data processing techniques were analyzed computerized using SPSS 16.0 for Windows which has met the ethical approval Number: 551/PL17/LL/2017.

3. RESULTS AND DISCUSSION

The following is a table of characteristics of mothers and children by age. Table 1. Characteristics of Mother and Child by Age

Umur	Min-Max	Mean	SD
Mother age (Th)	20-45	30,75	5,75
Children age	1-5	5	0,69

Source: Data Primer (2019-2020)

Based on table 1, it is known the age distribution of mothers and children under five. The average age of the mother was 30.75 ± 5.75 years, with the lowest age being 20 years and the highest age being 45 years. The average age of toddlers is 3 ± 0.69 years with the lowest age being 1 year and the highest age being 5 years.

The following is a table of characteristics of the mother's level of education.

Table 2. Characteristics of Mother's Education Level

Mother Education level	Total	Percentage
Graduated from elementary school	17	25
Graduated from Junior high school	25	36,7
Graduated from Senior High School	19	27,9
D1	2	2,9
D3	1	1,4
S1	6	5,8
Total	70	100

Source: Data Primer (2019-2020)



Job	Total	Percentage (%)
housewife	64	94,1
teacher	3	1,47
farmer	3	4,4
Total	70	100

Source: Primer Data (2019-2022)

Based on table 3, it is known that from 70 respondents, most of the respondents as many as 64 people are housewives (94.1%), and only 3 respondents (1.47%) are teachers.

Table 4. Characteristics of Children by Gender

Gender	Total	Percentage (%)
Men	37	54,4%
Women	33	45,6%
Total	70	100

Source: Primer Data (2019-2020)

Based on the research that has been done, the sex of the boys is 37 (54.4%) and 33 (45.6%) of the girls are female.

Table 5. Mother's Knowledge About Balanced Nutrition

knowledge	Total	Precentage (%)
good	23	33,8
enaugh	18	26,5
less	27	39,7
Total	68	100

Based on the table above, it shows that most of the 27 respondents (39.7%) are in the category of poor knowledge level. The level of knowledge is sufficient as many as 18 respondents (26.5%) and a good level of knowledge as many as 23 respondents (39.7%).

The following is a table of maternal behavior regarding balanced nutrition: Table 6. Mother's Behavior About Balanced Nutrition

Behaviour	Total	Precentage (%)
Good	27	36,8
enough	14	20,6
less	29	42,6
Total	70	100

Source: Primer Data (2019-2020)

The table above shows that most of the 29 respondents (42.6%) are in the category of less behavior level. While at least 14 respondents have a sufficient level of behavior

The following table describes the nutritional status of children T table 7. Nutritional Status of Children

nutrition	Total	Precentage (%)
Good	31	42,6
less	38	55,9
More	1	1,5
Total	70	100

Source: Primer Data (2019-2020)

The table above shows that most of the 38 children (55.9%) have poor nutritional status, and only 1 (1.5%) children have more nutritional status.

While the following table is a table that describes the correlation of mother's knowledge about balanced nutrition with the nutritional status of children under five in the village of Sukosewu village, Gandusari district.

Table 8. Relationship of Mother's Knowledge of Balanced Nutrition with Nutritional Status of Toddlers in Gandusari Village

Mother knowledge about balance nutrition	Toddler nutrition status			Total n (%)	P	r
	Good n (%)	less n (%)	More n (%)			
Good	16 (23,5)	6 (8,8)	1 (1,4)	23 (33,8)		
Enough	8 (11,7)	10 (14,7)	0 (0)	18 (26,4)	0,000	0,339
Less	5 (7,3)	22 (32,3)	0 (0)	27 (39,7)		
Total n (%)	29 (42,5)	38 (55,9)	3 (1,4)	70 (100)		

Source: Primer Data(2019-2020)

Based on the Somers'd test, it was stated that there was a relationship between mother's knowledge about balanced nutrition and the nutritional status of the child, and a correlation coefficient of 0.339 was obtained, which means it has a weak relationship. While the direction of the correlation is unidirectional (positive) which means that the less knowledge of mothers about balanced nutrition, the less nutritional status of children. The results of this study are in accordance with research conducted by Rika on mother's knowledge of nutrition and nutritional status of children aged 1-3 years which was conducted on respondents in the working area of Rejosari Health Center which stated that there was a significant relationship between mother's knowledge about nutrition and the nutritional status of children. -3 years which shows that the results of 98 respondents are mostly low knowledge of mothers, namely 62 respondents (63.3%) with the highest nutritional status of children, namely poor nutritional status as many as 52 respondents (53.06%) (Rika, et al., 2013).

The results of the research conducted in Sukosewu Village, Gandusari District, showed that most mothers had less knowledge about balanced nutrition. Of the 20 questions asked, most of the respondents answered incorrectly on the point of preparing a diverse menu, the function of vitamins, carbohydrates, and proteins, as well as the type and content of nutrients in the food. This is because most of the mother's education is junior high school so that there is minimal knowledge.

Knowledge related to health problems will affect health problems in certain groups. Lack of knowledge about nutrition will result in reduced ability to apply information in daily life which is one of the causes of nutritional problems. In Notoatmodjo, 2007, most of the respondents are housewives, so it is difficult to get information about balanced nutrition and a good balanced menu for children, due to the lack of information sources for those who just stay at home as housewives.

Based on the research conducted, mothers allow or give frozen and MSG foods such as sausages, instant noodles and snacks. Sausages, noodles and snacks (chiki) contain a lot of preservatives, coloring and MSG. For toddlers who are sensitive to preservatives and dyes can cause allergy symptoms in both the body and brain, besides that it also causes diarrhea problems. Allergies to additives or certain substances in food can affect mood, behavior, and thought processes. Even in the long term will increase the risk of cancer. The mother gave the food because the mother thought it could replace the food that should be consumed at breakfast because most toddlers had difficulty eating. This happens because of the lack of mother's education and the mother's lack of knowledge about the content and harmful substances contained in sausages. Most of the mothers only graduated from Junior High School (SMP). Education is a learning process which means that in education there is a process of growth, development or change towards a more mature, better and more mature individual, group or community. The higher a person's education level, the easier it is for them to receive information, on the contrary, the lower a person's level of knowledge, the more difficult it is for them to receive information.¹¹ Most of the respondents are housewives so it is difficult to get information about health and nutrition because their daily activities are only done at home as part of their daily activities. housewife.

Based on research conducted, most respondents do not know the importance of fruits and vegetables for children. Respondents do not get used to children consuming fruits and vegetables since childhood so that when children enter pre-school age children do not want to consume vegetables and fruit that their mothers give them. This is due to the lack of knowledge of mothers about the benefits of vegetables and fruit for children's health, so that it has an impact on the pattern of giving and types of food in children and also problems with digestive disorders in children that respondents complain about, such as difficulty in defecating. In general, vegetables and fruits are sources of various vitamins, minerals and dietary fiber. As vitamins, minerals contained in vegetables and fruits act as antioxidants or antidote to bad compounds in the body. Lack of consumption of fruits and vegetables that contain fiber can cause constipation that occurs in children. According to Sulistyoningsih (2011), this habit is still not in accordance with the special message of balanced nutrition for children aged 2-6 years,

namely increasing the consumption of fruits and vegetables for children. The following is a table of the relationship between maternal behavior regarding balanced nutrition and the nutritional status of children under five in Sukosewu Village, Gandusari District.

The results of the research conducted in Sukosewu Village, Gandusari District, showed that most of the mothers had less behavior about balanced nutrition. From the 15 statements submitted, there are several points of balanced nutrition behavior that are rarely carried out by respondents, namely: maintaining and paying attention to children's weight, getting used to breakfast, giving foods that contain animal protein such as fish and getting used to drinking milk every day, from respondents' answers it can be seen that respondents have not been able to apply the message of balanced nutrition properly, in accordance with PUGS 2014. Mother's behavior about balanced nutrition is related to the actions or activities of mothers in accordance with the general message of balanced nutrition. Frozt, et al. (2010) states that behavior is formed through a process and takes place in human interaction with the environment.

The factors that influence the formation of behavior are divided into two, namely internal factors and external factors. Internal factors include knowledge, intelligence, perception, motivational emotions that function to process external stimuli while external factors include the surrounding environment, both physical and non-physical such as climate, human, social, economic, cultural and so on.

One of the factors that affect the nutritional status of children is the mother's behavior in choosing and providing food, because the mother's behavior affects how the community is able to meet the food supply of individuals and their families. There are still many people who do not consume enough vegetables and fruits. The quality of protein consumed on average per person per day is still low because most of it comes from vegetable protein.⁷ Low maternal behavior can be caused by a lack of mother's level of knowledge about balanced nutrition and lack of ability to apply it in daily life (Frost et al., 2010).

Based on the research conducted, many respondents provide noodles at home as a snack for children because children like and always ask to make instant noodles when hungry, if done continuously it will cause unfavorable consequences for children because instant noodles contain msg and preservatives that are harmful. not good for children's health and it is not in accordance with the general message of balanced nutrition to limit the consumption of sweet, salty and fatty foods. Adverse food habits or taboos, excessive preference for certain types of food and the socioeconomic status of parents can also affect the nutritional status of children (Hidayat, et al., 2008).

Based on the mother's behavioral questionnaire interview about balanced nutrition conducted by the researcher, the respondent rarely gave meat or fish to the child due to poor economic conditions so that the child was accustomed to consuming vegetable side dishes such as tofu and tempeh since childhood, so that when occasionally the mother gave fish the child refused because he was not used to it. . From the incident above, it can be seen that respondents have not been able to fulfill the general message of balanced nutrition at the point of getting used to consuming side dishes that contain high protein, this causes a lack of animal protein intake in children which can affect children's health and nutritional status. In meeting the needs of balanced nutrition, economic factors become one of the factors that determine a person's ability to meet the needs of balanced nutrition that is in accordance with what is needed or which is not in accordance with his needs. The economic status of parents can affect changes in the nutritional status of children. Provision of nutritious food requires no small amount of funds, so that changes in nutritional status are influenced by economic status. Someone with less economic status usually has difficulty in providing nutritious food, on the contrary, people with high economic status find it easier to provide nutritious food.

The results of interviews conducted with one respondent, children are too fond of instant baby porridge because every day children always ask for instant baby porridge when finished eating breakfast, lunch and dinner. This happens because when the mother is 1 year old, she always makes instant baby porridge and continues until the child enters pre-school age. Mother's behavior in feeding children is good because by giving instant baby porridge to children, it can increase the intake of carbohydrates that have not been fulfilled because children only want to consume 2-3 spoons of rice. While the nutritional status of children is more, this is due to genetic factors obtained from both parents who have more nutritional status. On average, genetic factors have an influence of 33% on a person's weight (Frost, et.al., 2010).

Based on research conducted some children rarely want to eat breakfast. Because I'm used to getting up late and don't want to eat breakfast. So that at school the children buy cilok Bakar which is sold by sellers who trade in front of the school and mothers let their children buy it because when they are at home they don't want to have breakfast. This habit is not good if done continuously because breakfast every day is important especially for children because they are growing and experiencing brain development which is very dependent on regular food intake. In an effort to meet the nutritional needs for a day it is recommended that children eat regularly 3 times a day starting with breakfast, or breakfast, lunch, and dinner (Frost, et.al. (2010)

4. CONCLUSION

1. There is a correlation between mother's knowledge about balanced nutrition and the nutritional status of children under five in Sukosewu Village, Gandusari District.
2. There is a correlation between maternal behavior regarding balanced nutrition and the nutritional status of children under five in Sukosewu Village, Gandusari District.

5. SUGGESTION .

1. Future researchers are expected to include other variables that can affect children's nutritional status (income, diet and culture).
2. For the community, especially mothers, it is expected to bring provisions to children so that children's food intake is still fulfilled while at school so that they can achieve normal nutritional status.
3. Educational institutions are expected to provide counseling, socialization and health promotion to nearby schools regarding balanced nutrition and types of nutritious food that can improve nutritional status, especially children.
4. For Kindergartens located in Sukosewu Village, Gandusari District, equipment should be provided to measure weight and measure children's height so that weight monitoring activities and child growth and development can be carried out.

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