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# Analysis Of Factors That Affect The Application Of Balanced Nutrition Diet For Male Students At Maesan Mojo Islamic Boarding School, Kediri Regency

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#### **ABSTRACT**

Efforts to optimally obtain a person's nutritional needs are by organizing food which is managed by applying scientific disciplines such as nutrition, management, dietetics and by applying the principles of efficiency and effectiveness because the aim of organizing food is to produce food of good quality and in accordance with needs. Attention to the provision of food for students at Islamic boarding schools for youth is very important. The purpose of this research is to study the factors that influence a balanced nutritional diet at the Maesan Mojo Islamic Boarding School, Kediri Regency. The research use Quantitative research method with a cross-sectional approach and chi- square analysis of data. The population in the study were 117 male students and 85 samples were used. Retrieval of data by accidental sampling, namely researchers taking samples that happened to be encountered at that time. The results of the study regarding the characteristics of respondents with the highest prevalence were aged 15 years with the last education being junior high school and found the influence of nutritional knowledge, physical activity, type of food with a balanced nutritional diet supported by p-values of 0.002 and 0.000. The discussion in this study is that there are factors that influence a balanced nutritional diet, namely nutritional knowledge, physical activity and types of food which are interrelated. This is evidenced by the results of the research analysis that has been carried out. The conclusion of the study is the discovery of factors that influence balanced nutrition in adolescents including age, knowledge of nutrition, physical activity, type of food.

**Keywords:** Nutrition Knowledge, Physical Activity, Types Of Food, Balanced Nutrition Diet

#### **INTRODUCE**

Health is one of the elements of welfare and human rights that must be realized in accordance with the ideals of the Indonesian people contained in Pancasila and the 1945 Constitution of the Republic of Indonesia. Health is a healthy state, both physically, mentally, socially and spiritually which allows everyone to live a socially and economically productive life (UU No. 36 of 2009).

Adolescents are an age group that is in a transitional period between childhood and adulthood, therefore the health of adolescents must be considered. This period is also a period towards physical and psychological maturity and the search for identity. Adolescent girls are a group that is more vulnerable to the risk of reproductive morbidity and mortality, especially in developing countries.

Adolescents need energy/calories, protein, calcium, iron, zinc and vitamins to fulfill physical activities such as school activities and daily activities. Every teenager wants a healthy body condition in order to be able to fulfill physical activity. Energy consumption comes from food, the energy obtained will cover the energy intake that has been released by a person's body (Winarsih, 2018)

Efforts so that a person's nutritional needs can be obtained optimally is by holding food organizations which are managed by applying scientific disciplines such as nutrition, management, dietetics and carried out by applying the principles of efficiency and effectiveness because the aim of organizing food is to produce food of good quality and in accordance with needs. Good food not only contains balanced nutrition but also has good taste and appearance, so that the food served can be consumed. Diet can affect nutritional status, and it is very important to meet daily balanced nutritional needs. Achieving balanced nutrition can be useful for preventing health and nutrition problems (Mokoginta, 2016).

Protein is the most complex macronutrient and is the chemical "bricks" that make up the body. Protein in the mucosal cells of the small intestine that helps the absorption of iron. Protein as transferrin which transports iron from the digestive tract through the cell membrane wall into the cells. Transferrin protein synthesized in the liver exists in two forms. The protein transferrin synthesized in the liver exists in two forms, mucosal transferrin transports iron from the digestive tract into mucosal cells and transfers it to transferrin receptors in mucosal cells, while transferrin receptors transport iron via the blood to all body tissues. Lack of protein can inhibit the absorption of iron which can interfere with the process of iron metabolism resulting in low hemoglobin levels

According to research by Aisyah (2015) on Islamic boarding schools, Islamic boarding schools are a place to educate students so that they become people of noble character and have high intelligence. Santri who are in Islamic boarding schools are students who are basically the same as students in public schools who must develop and are resources that become the next generation of development that need special attention, especially the health and growth of adolescents.

Adolescents are used as the target population because the adolescent population constitutes one-fifth of the total population. Adolescents are the next generation of the nation so that they are one of the most potential and quality human resources if their needs for good nutrition are met from an early age. Adolescents are vulnerable to nutritional problems because adolescence is a transitional period towards adulthood from childhood, there are changes in lifestyle and eating habits, besides that the tendency for adolescents to eat excessively causes more nutritional status (Dieny, 2014). Busyness in adolescence which socializes more in the external environment encourages eating behavior outside the home, mass media such as television, online advertisements, peers have a strong factor in influencing adolescent food choices. Many obese adolescents are not identified as children and do not receive proper treatment. Early identification can be done by knowing the body mass index of adolescents and then taking preventive measures against various risks of disease that may be suffered. Attention to the provision of food for students in the youth boarding school is very important. Santri are teenagers who need attention in choosing food and cannot provide their own food. The aim of providing food at the Maesan Mojo Islamic Boarding School, Kediri Regency is to provide food that is diverse, balanced and nutritious, safe for consumption, meets the nutritional needs of the students, is served attractively, service is timely, friendly, and has adequate and comfortable facilities. The level of preference of students for food will affect the acceptability and taste of food for students. The taste of food includes two main aspects, namely the appearance and taste of food. These two aspects are equally important to pay attention to so that they can really produce satisfying food (Lubis, 2015).

Based on the results of the preliminary studies that have been carried out, the results show that the food distribution system or food portions for adolescents in Islamic boarding schools has not been properly regulated and is still independent. Distribution of food is also done randomly without regard to nutrition in food. Because maesan Islamic boarding schools are traditional, so food production is carried out freely and unscheduled. This is the reason why a balanced nutritional diet needs to be analyzed in order to minimize the occurrence of errors in fulfilling nutrition in Islamic boarding school adolescents.

From the description above, it is possible to conduct research with the title "Analysis of Factors Influencing the Implementation of a Balanced Nutritional Diet at the Maesan Mojo Islamic Boarding School, Kediri Regency".

#### **METHODS**

The research method used is a quantitative method. The quantitative method is used to test the hypotheses that have been made. The type of research used in this study is analytic observational with a cross-sectional approach. The population used in this study were 117 young men. The sample used was 85 young men calculating the slovin formula. The independent variables in this study were age, knowledge of nutrition, activity, type of food and the dependent variable in this study was a balanced nutritional diet. Bivariate analysis in this study used the chi- square test which was processed using the SPSS program.

### **RESULT**

## A. Characteristics of Respondents

Characteristics of the age of the respondentsMost of those studied were with the highest frequency at theage of 15 years. Characteristics of respondents with the last education shows the highest frequency of distribution in junior high school education as many as 42 respondents with a percentage (49.4%). The characteristics of the respondents based on their height and weight werethat the average height of the 85 respondents was around 162 - 163 cmand the average weight was 55 - 56 kg.

Source: Primary Data for 2022

## **B.** Cross Tabulation Analysis

- Cross-tabulation of nutritionalknowledge with a balanced nutritional diet: respondents with less nutritionalknowledge did not have a balanced nutritional diet.
- Cross tabulation of nutrition knowledge variables with physical activity: This shows that good activity will supportgood nutritional knowledge aswell.
- Cross-tabulation of balanced nutrition diet variables with types of food: 23 respondents with different types of foodhad an adequate balanced nutritional diet
- Cross-tabulation of a balanced nutritional diet (BMI) with physical activity: that 33 respondents with less physical activity had less weight and no respondents were found tohave obese bodies.

### C. Univariate analysis

ofbalanced nutritional diets Frequency distribution

Balanced Nutrition Diet					
	Categor	Frequenc	Percentag		
	y	y	e		
Valid	Not	8	9.4%		
	enough				
	Enough	49	57.6%		
	Good	28	32.9%		
Total		85	100%		

Based on the data table above, it is known that from the 85 respondents studied, there were 49 respondents with a percentage (57.6%)

### **D.** Bivariate Analysis

Based on the results of the statistical test, a p-value of 0.002 was obtained. This shows that at the 5% level there is an indirect effect between nutritional knowledge on a balanced nutritional diet.

Based on the results of the statistical test, a p-value of 0.000 was obtained. This shows that at the 5% level there is an indirect effect of physical activity on a balanced nutritional diet.

Based on the table above, it is known that the p value of the statistical test results shows a value of

or less than 0.005, which means that there is an indirect effect between the types of food on a balanced nutritional diet.

Tabel 2. Chi Square Test Analysis

## a) Effect of nutritional knowledge with a balanced nutritional diet

		BMI			Total	P-Value
		Less BB	ideal BB	BB More		
Nutrition	Not	0	0	2	2	
Knowledge	enough					
	Enough	41	0	0	41	0.002
	Good	0	42	0	42	
Total		41	42	2	85	

# b) Effect of physical activity with a balanced nutritional diet

		BMI			Total	P-Value
		Less BB	ideal BB	BB More		
Physical Activity	Not	35	0	1	36	
Activity	enough					
	Enough	4	12	1	17	
	Good	2	30	0	32	0.000
Total	•	41	42	2	85	0.000

## c) The effect of the type of food with a balanced nutritional diet

		BMI		Total	P-Value	
		Less BB	ideal BB	BB More		
Food Type	Various	6	41	2	49	
	Not Diverse	35	1	0	36	0.000
Total		41	42	2	85	0.000

Source: SPSS Primary Data, 2022

### **DISCUSSION**

## A. Analyzing Knowledge of Nutrition in Young Men at the Maesan Mojo Islamic **Boarding School, Kediri Regency**

Based on the results of the research above, it can be shown that the adolescents at the Maesan Mojo Islamic Boarding School, Kediri, know enough about balanced nutrition knowledge, this is evidenced by the results of the statistical calculation of nutrition knowledge for boarding adolescents by 41 respondents, 48.2%. This value is quite high for the level of knowledge of adolescents about balanced nutrition.

Based on the results of data collection, it was shown that as many as 2 young people in Islamic boarding schools, 2.4% had knowledge of balanced nutrition which was classified as lacking. And 42 youth boarding school 49.4% classified as good. The results of the statistical test showed a p value of 0.002 or less than 0.005, which means that there is an influence between nutritional knowledge and a balanced nutritional diet.

The level of knowledge of balanced nutrition in adolescents at the Maesan Mojo Islamic boarding school, Kediri district, is quite high, this is because education at Islamic boarding schools uses an education system that integrates only religious and general knowledge. Providing knowledge about the principles of balanced nutrition consisting of 4 pillars is very much needed for Islamic boarding school youth. The 4 pillars of balanced nutrition are a variety of foods, physical activity, personal and environmental hygiene and monitoring of weight and height (Ministry of Health, 2014).

# B. Analyzing the Physical Activity of Young Men at the Maesan Mojo Islamic **Boarding School, Kediri Regency**

Based on the results of the study, the average height of the respondents was around 162-163 cm and the distribution of the frequency of body weight was 55-56 kg. The frequency of doing lots of physical activity gets results of 37.6% by categoryGood the most. The analysis is explained by univariate or descriptive analysis. The results of calculating the effect between physical activity and a balanced nutritional diet show a p value of 0.000, this proves that there is an influence between physical activity and a balanced nutritional diet because the p value is less than 0.005. the analysis used is bivariate with chi square test.

The physical activities carried out by young men at the Maesan Mojo Islamic boarding school, Kediri district, tend to be lacking because the average results from interviews and data collection are rare. This is because there are quite a lot of cottage activities. Quite a lot of physical activity is done with friends, such as playing soccer and other games. Based on the research results, it is known that young men tend to have a thin and tall body. Lack of physical activity is strongly influenced by the intake of food eaten, the lower the intake of food obtained, the less active they are to do activities because they do not have enough energy to move (Heryudarini H, 2015).

# C. Analyzing the Types of Food in the Maesan Mojo Islamic Boarding School, Kediri Regency

Based on the results of the study, it was shown that the average consumption of types of food by respondents was still very homogeneous or did not vary because basically all types of food had been prepared by the lodge. This also causes the absence of regular portion calculations for santri. Respondents in the study were male students who had the characteristic of eating quite a lot more than female students. The results of the interviews also show that sanitation hygiene is also very minimal at the Maesan Islamic boarding school.

In addition to the food delivery system, the food sanitation hygiene factor also has an important role in supporting the cleanliness of the food provided by the Islamic boarding school. Where there are several types of diseases originating from food if the food is not processed with due regard to hygiene (Anung, 2018)

The results of the calculations from this study show that the p value is 0.000 < 0.005, in other words, there is indeed an influence between the type of food provided and a balanced nutritional diet in the respondents. The frequency distribution was also carried out by the researchers with the result that the respondents consumed the most sources of protein at 54.1% and sources of fat were very rarely consumed with a percentage of only 40%.

# D. Factors Influencing Balanced Nutrition Diets at the Maesan Mojo Islamic Boarding School, Kediri Regency

Knowledge of nutrition has a significant relationship with the implementation of a balanced nutritional diet, this is evidenced by a significant value of 0.002 or less than 0.005, which means that there is an influence between these variables. The level of one's nutritional knowledge influences attitudes and behavior in food selection which will ultimately affect the nutritional state of the individual concerned. The higher the level of one's nutritional knowledge is expected to be the better the nutritional state. However, a person's nutritional knowledge may not necessarily change their eating habits, where they have an understanding of the nutritional intake needed by the body but do not apply this nutritional knowledge in their daily lives (Folrence G.A, 2017).

Physical activity and the type of food menu also have a close relationship with the adoption of a balanced nutritional diet, this is evidenced by the p value of 0.000. Eating habits that are often seen in adolescents include eating snacks, skipping meals, especially breakfast, irregular meal times, frequent fast food, rarely consuming vegetables, fruit and or livestock products and wrong weight control in young women. This can result in food intake not according to needs and balanced nutrition with the result being less or more nutrition (Irianto, 2014).

### **CONCLUSION**

Based on the results and discussion that have been explained by the authors, the research can be concluded as follows:

- 1. Knowledge of nutrition in young men at the Maesan Mojo Islamic Boarding School Kediri is quite good with a percentage of 49.2% in the good category. Statistical test of the effect of nutritional knowledge on a balanced nutritional diet shows a value of 0.002 or there is an influence between nutritional knowledge and a balanced nutritional diet
- 2. Physical activity has an effect on a balanced nutritional diet, this is evidenced by the p value of 0.000. Lack of activity also affects the balanced nutritional diet of Islamic boarding school adolescents.
- 3. The type of food influences a balanced nutritional diet by showing a p value of 0.000. Types of food that are not diverse can also hinder the implementation of a balanced nutritional diet.
- 4. Factors that influence the adoption of dietary patterns are nutritional knowledge, physical activity and types of food. These have been analyzed using the chi square method and bivariate analysis...

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