

## Nutritional Status in Students of Sdit Al Ihsan Pasuruan City

Moh. Miftahul Anam<sup>1</sup>, Wiwik Kusmawati<sup>2</sup>

<sup>1,2</sup>Program Studi Pendidikan Jasmani Kesehatan dan Rekreasi, Fakultas Eksakta dan Keolahragaan, Universitas Insan Budi Utomo

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### Abstract

Adolescents are an age group that is vulnerable to experiencing malnutrition or excess nutrition problems. Teenagers generally carry out higher physical activity compared to other ages, so they require more nutritional fulfillment. However, the incidence of overnutrition in adolescents can also occur due to poor eating habits so that the amount of energy input is greater than the energy expended. The purpose of this study was to describe the nutritional status of students. This type of research is quantitative with an analytical descriptive design on 85 students of SDIT Al Ihsan Kota Pasuruan. Data on nutritional status were obtained by measuring the height using a microtoise and the respondent's weight using a mechanical scale. Nutritional status is classified based on the value of the BMI/age z-score table for children aged 5-18 years from the 2011 Indonesian Ministry of Health guidelines. The results of the data analysis obtained the nutritional status category of junior high school students who were involved as the majority of respondents who were in the normal nutritional status category, namely 77 people (90.58%). However, there were still 8 students (9.41%) who were obese.

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### Corresponding Author:

Moh. Miftahul Anam

Universitas Insan Budi Utomo

Email: [miftahulganteng51@gmail.com](mailto:miftahulganteng51@gmail.com)

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## 1. INTRODUCTION

Adolescents are an age group that is vulnerable to malnutrition or overnutrition. Data from the Global School Health Survey (2015) reported that adolescents have unhealthy eating patterns that can affect their nutritional status, including: not always eating breakfast (65.2%), the majority of adolescents consuming insufficient fiber from vegetables and fruit (93.6%), and frequently consuming foods with added flavors (75.7%). In addition, adolescents also tend to be less physically active (42.5%). These factors can increase the risk of adolescents becoming overweight, even obese (Ministry of Health of the Republic of Indonesia, 2018). Adolescents who do not consume a balanced nutritious diet are also at risk of developing Chronic Energy Deficiency (CED), which can cause various infectious diseases and other hormonal disorders (Ministry of Health of the Republic of Indonesia, 2018). Adolescent nutritional status will determine the process of growth and development of an adolescent. This is in accordance with the findings of Asakura & Satoshi (2017) which states that good nutrition will support the growth and development of a child and adolescent. It is also stated that providing nutrition regularly will improve children's concentration in their learning process, thus indirectly supporting their cognitive development and academic grades at school. Adolescents who regularly consume nutrients and meal portions will also experience better growth compared to adolescents who do not. Adolescents have crucial nutritional needs to support their secondary growth. Lijuan et al. (2016) stated that adolescent girls who have sufficient iron intake will predominantly maintain stable hemoglobin levels during menstruation, compared to adolescent girls who

are iron deficient, who tend to experience anemia during menstruation. A similar thing will also occur in adolescent boys who will experience fatigue quickly, which will affect their activity levels that should be high. Long-term impacts if this is not addressed are iron anemia in expectant mothers, and chronic fatigue in men. After understanding some of the impacts of malnutrition, and considering that adolescents are the future of the nation, nutritional status becomes an important topic for parents, schools, and the government to focus on. This is the potential and basis for conducting research to determine the nutritional status of students at SDIT Al Ihsan, Pasuruan City.

**2. RESEARCH METHODS**

This study was quantitative with a descriptive analytical design on 85 students at SDIT Al Ihsan, Pasuruan City. Nutritional status data was obtained by measuring height using a microtomies and weight using a mechanical scale. Nutritional status was classified based on the BMI/age z-score table for children aged 5-18 years according to the 2011 Indonesian Ministry of Health guidelines.

**3. RESEARCH RESULTS AND DISCUSSION**

**3.1. Research result**

The distribution of respondents' nutritional status is presented in Table 4.1. Meanwhile, the diagram of respondents' nutritional status is in Figure 4.1.

**Table 1 Distribution of Respondents' Nutritional Status (n=85)**

Nutritional Status Category	f	%
Very Thin	0	0
Which	0	0
Normal	77	90,58
Fat	8	9,41
Obesity	0	0

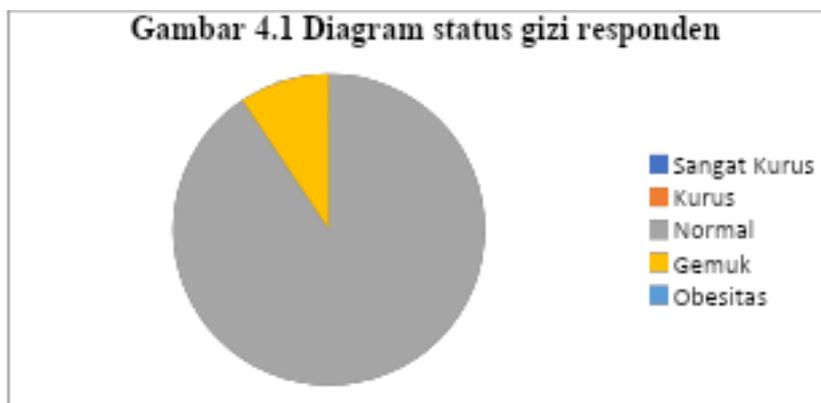


Table 1 and Figure 1 show the nutritional status categories of the students at SDIT Al Ihsan, Pasuruan City, who participated as respondents. The majority of respondents were in the normal nutritional status category, namely 77 students (90.58%). However, there were still 6 students (9.41%) who were obese.

**3.2. Discussion**

The results of the study showed that the majority of respondents were in the normal nutritional status category. These results support the research of Dya and

Adiningsih (2019), which also found that the majority of high school students involved as study participants had normal nutritional status. Nuryani and Rahmawati (2018) stated that of the 134 students involved as respondents, 67.9% had normal nutritional status. Normal nutritional status describes a person's nutritional adequacy or the balance between the amount of energy entering the body and the energy expended. In general, food consumption is closely related to nutritional status. If the food consumed has good nutritional value, then nutritional status is also good, conversely, if the food consumed lacks nutritional value, it will lead to malnutrition. Sholeha (2014) found a relationship between eating behavior and BMI in adolescents. Snacking habits are an eating behavior that influences diet quality and BMI. Consuming snacks in large portions and frequently can increase the risk of obesity, conversely, consuming snacks before feeling hungry will improve diet quality in children (Nuru & Mamang, 2015). Patchep (2011) also explains several factors that influence eating behavior and food choices in adolescents, one of which is peers.

This illustrates the importance of controlling environmental factors surrounding adolescents in achieving balanced nutritional status to prevent malnutrition and obesity in adolescents. Fulfillment of nutritional intake needs varies between individuals. This depends on age, gender, activity level, weight, and height (Thamaria, 2017). The results of this study found that the majority of junior high school students involved as respondents were 13 years old and male. Age 13 is the school age with characteristics of appetite that tends to increase naturally (Muhilal, 2006). Sari (2011) stated that school-age children need to receive more attention to their daily eating patterns from parents and their surroundings because it will shape the child's future eating patterns. The results of this study also found that there are still students who are obese. In line with the research of Dya and Adiningsih (2019), which also found 28.6% of adolescents involved in their study were obese. Research by Noer, Kustanti, & Fitiriyanti (2018) found that obesity begins when someone reaches puberty due to irregular eating habits, weak parental control, followed by increased school activities that lead to increased appetite and peer influence. Fraser et al (2012) stated that someone who consumes fast food at the age of 13 years increases the risk of obesity by 1.23 times by the age of 15 years or can increase BMI by 0.08 kg/m<sup>2</sup>. Adolescents who have excessive macronutrient intake, frequent fast-food consumption, lack of physical activity, have mothers and fathers with obese status, and do not eat breakfast are at greater risk of obesity (Kurdanti et al., 2015). Wulandari, Muniroh, and Susila (2015) found that overweight children have a greater energy intake than children with normal nutritional status. Adolescents who experience nutritional imbalances can develop various diseases. Dya and Adiningsih (2019) found that nutritional status is one of the causes of menstrual cycle disorders in adolescent girls. Research by Weiss et al. (2004) found that of 112 adolescents with obesity problems in the United States, 23 (21%) experienced glucose intolerance. Not only physiological problems, but excessive or insufficient nutritional status in adolescents can cause psychological disorders such as negative body image (Sahputri, 2015). Furthermore, adolescents with obesity also experience bullying or teasing from friends, which can affect their psychology (Noer, Kustanti, & Fitiriyanti, 2018). Various physical and psychological problems that can be experienced by adolescents as a result of inadequate nutritional fulfillment require comprehensive management. Nurcahyani, Suaib, and Istejo (2020) found that nutritional education had an effect on energy and protein intake in junior high school girls in Makassar. Providing education through counseling using leaflets successfully increased knowledge about nutrition and was able to increase energy and protein intake of junior high school students (Pakhri, Sukmawati, & Nurhasanah,

2018). Research by Asrar, Hadi, and Boediman (2009) found a relationship between parenting styles and eating patterns and children's nutritional status. Parenting styles refer to the behaviors practiced by parents or other caregivers, from providing food and providing the emotional support children need during their growth and development.

#### 4. CONCLUSION

Based on data analysis, the majority of the junior high school students participating as respondents were in the normal nutritional status category. However, there were still some students who were obese.

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