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Description Of the Nutritional Status of Young Women at SMP YPAK PTPN III SEI KARANG

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ABSTRACT

Adolescent girls are a group that is vulnerable to nutritional problems. The nutritional status index for female adolescents aged 13–15 years in Medan City is 8,12% undernutrition and 22,29% overnutrition. This figure is higher than the nutritional status of North Sumatra, which is 7,3% undernourished and 17,7% overnourished. This study aims to determine the nutritional status of adolescent girls at YPAK PTPN III Sei Karang Middle School. This type of research is quantitative descriptive research with a cross-sectional study design, which means that data is collected simultaneously or all at once with a sample size of 50 people. The results showed that the BMI of 40 respondents (80%) had normal nutritional status, 6 people were undernourished (12%), 3 people were overnourished (6%), and 1 person was obese (2%). The upper arm circumference of respondents was normal (23,5–28,5 cm) 35 people (70%), malnourished (<23,5) 11 people (22%) and overnourished (>28,5 cm) 4 people (8%). From the results of this research, it can be concluded that the majority of adolescent girls have good nutritional status.

Keywords: *Nutritional Status, Young Woman.*

1. INTRODUCTION

Beginning Teenagers are agents of change for the progress of a country (Yastirin et al., 2022). During adolescence, there are many rapid changes, such as physical, cognitive, and psychosocial or behavioral changes (Goreti, 2019). Teenage nutrition problems are usually caused by consuming unhealthy foods. To get the best health, you must maintain a balance of the nutrients you consume. To stay healthy, you must exercise regularly in addition to consuming food (Irdian, 2019).

Nutrition is the process by which creatures use regularly consumed food through digestion, absorption, transportation, storage, metabolism, and excretion

of unused substances to maintain life, growth, and normal function of body organs and produce energy (Arika, Romiza, and Suraya, 2024). By measuring body weight, height, and LILA indices, anthropometry is a method of direct nutritional assessment (Supariasa, Bakri, and Fajar, 2013). To measure the nutritional status of adolescents, body weight (BB), height (TB), body mass index (BMI), and upper arm (LILA) are used (Patimah, 2017).

Based on the 2018 Riskesdas report, the nutritional status index for adolescents aged 13–15 years in Medan City is 8,12% undernourished and 22,29% overnourished. This figure is higher than the nutritional status of North Sumatra, which is 7,3% undernourished and 17,7% overnourished. The nutritional status level of the population aged 16–18 years in the city of Medan is 3,63% undernourished and 15,92% overnourished. Meanwhile, North Sumatra's nutritional status is 5,1% undernourished and 14,9% overnourished. Although the prevalence of undernutrition is still lower than in North Sumatra, the prevalence of overnutrition is higher at 1,02% in North Sumatra (Ministry of Health of the Republic of Indonesia, 2019).

In Indonesia, nutritional status based on BMI/U is 2,4% very thin, 6,8% thin, 10,8% fat, and 9,2% obese, according to Riskesdas data (2018). Nutritional status based on TB/U was 6,7% very short and 16,9% very short. If this problem continues into adulthood, the fetus will experience health problems, and nutritional problems will continue in the next generation chain (Ministry of Health of the Republic of Indonesia, 2019).

Based on this introduction, the author wants to conduct research on the nutritional status of adolescents at YPAK PTPN III Sei Karang Middle School using the Body Mass Index (BMI) and Upper Arm Circumference (LILA). Both methods are simple and easy to use, have been widely used in various studies, and can provide a fairly accurate picture of nutritional status.

2. RESEARCH METHOD

This type of research is quantitative descriptive research with a cross-sectional study design, which means data is collected simultaneously or all at once. At YPAK PTPN III Sei Karang Middle School, this research also used interview methods and data collection by taking measurements, including body weight, height, and upper arm circumference (LILA). This aims to determine the nutritional status of adolescent girls at YPAK PTPN III Sei Karang Middle School.

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3. RESULT AND ANALYSIS

Table 1 Frequency Distribution of the Nutritional Status of Young Women

Age	Frequency	Percentage (%)
Age 14 years	28	56%
Age 14 years	20	40%
Age 14 years	2	4%
Amount	**50**	**100%**

Based on age characteristics, there were 28 respondents aged 14 years (56%), respondents aged 15 years had 20 people (40%), and respondents aged 16 years had 2 people (4%).

Table 2 Nutritional Status of Young Women Based on Body Mass Index (BMI)

Nutritional Status	Frequency	Percentage (%)
Malnutrition (Thinness)	6	12%
Good Nutrition (Normal)	40	80%
Overnutrition (Overweight)	3	6%
Obesity (Obese)	1	2%
Amount	**50**	**100%**

From the table above, it can be seen that the majority of young women who were research respondents had normal nutritional status, namely 40 people (80%), 6 people (12%) were undernourished, 3 people were overweight (6%), and 3 people are obese. A total of 1 person (2%).

Table 3 Nutritional Status of Young Women Based on Upper Arm Circumference (LILA)

Upper Arm Circumference	Frequency	Percentage (%)
<23,5	11	22%
23,5 – 28,5	35	70%
>28,5	4	8%
Amount	**50**	**100%**

From the table above, it can be seen that the majority of young women who were research respondents had an upper arm circumference of 23,5–28,5 (normal),

namely 35 people (70%), <23,5 (poor nutrition) as many as 11 people (22%), and >28,5 (excessive nutrition) as many as 4 people (8%). The LILA values obtained show that the majority of young women have normal nutritional status.

The Adolescent health starts from an early age. Adolescence will be affected by the sequelae of infection and malnutrition in children. Women whose bodies do not develop properly are at risk of giving birth to babies with low birth weight, obstructed labor, and bleeding during delivery (Banowati, 2019).

Nutritional status influences nutritional problems. People who are malnourished are at risk of infection, while people who are overnourished and obese are at risk of developing various degenerative diseases (Charina et al., 2022). Nutritional health is a complex problem that requires treatment because it can occur in all life cycles, starting from the beginning of life in the womb to toddlers, adolescents, and the elderly. Apart from that, according to Astuti, Bayu, and Destriana (2022) teenagers are an age group that is vulnerable to nutritional problems. Health improvement efforts are efforts to maintain and improve a person's health to achieve the best level of health possible (Sulistyowati, 2019).
A study conducted by Purwanti (2017) found that there was a significant correlation between the nutritional status of teenagers and their breakfast habits. This finding is in line with the theory that healthy types of food can meet their nutritional needs at breakfast. Breakfast foods are considered good if they contain the nutrients that teenagers need.

A person's weight can be considered normal, thin (underweight), or fat (overweight or obese) by calculating their BMI. IMT should only be used by adults over 18 years of age. It should not be used on babies, children, teenagers, pregnant women, or athletes who play sports. WHO recommends calculating BMI using percentiles and BMI tables. However, BMI calculations are currently used in many studies to evaluate the nutritional status of adolescents. This is partly due to the fact that calculating body mass index (BMI) is a method that is easy, simple, and accurate enough to be applied globally. Research in various regions of Indonesia also shows that BMI can also be used to assess the nutritional status of adolescents. This calculation was previously only used for adults (Pangow et al., 2020). To assess a person's nutritional status, BMI can be used to measure their weight (in kilograms) and height (in centimeters), then divide the weighing results by their height squared. Nutritional status is the state of health of a person's or community's body, which is influenced by the food they consume and the use of nutrients in their body. BMI can only be used for adults over 18 years old to help monitor their nutritional status (Makmun, A., & Pratama, A. 2021).

Age, gender, heredity, diet, and daily activities are other factors that can influence BMI. A person's eating pattern greatly influences their nutritional status. A person with a normal body mass index has a regular, controlled, and healthy eating pattern. On the contrary, changing eating patterns will lead to wrong eating

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patterns, which in turn will lead to a lack of knowledge about nutrition. Currently, Indonesia is facing the problem of malnutrition, which causes the body to become short, stunted, and thin (Zahra Wulandari et al., 2023).

On the other hand, nutritional problems, such as overweight and obesity, are increasing in Indonesia. So, Indonesia's health status is still low because many infectious diseases and malnutrition interact with each other. However, lack of nutrition is the main cause of public health problems in several regions of Indonesia, especially in big cities. Underweight occurs due to lower energy intake, while obesity and overweight occur due to nutritional intake being greater than the energy released by the body. Many dangerous diseases, such as diabetes mellitus, hypertension, stroke, and so on, can be caused by obesity. Physiological, mental, and accidental factors are the three components responsible for obesity. Overweight and obesity are two of the components related to behavior (Veramala, A. 2021).

Adolescent girls are the most vulnerable to the effects of poor nutrition. Dietary errors can cause overweight (obesity) or malnutrition due to a diet that is too strict (Surbakti, 2008).

In this study, a defined sequence was used to measure LILA. There are seven steps to measure LILA:

1. Determine the position of the elbows and shoulders;
2. Place the band between your elbow and shoulder;
3. Determine the midpoint of the arm;
4. Loop the LILA ribbon around the middle of the arm;
5. Don't tie the ribbon too tight;
6. Don't be loose;
7. Learn how to read the scale correctly.

Measuring LILA: Unless left-handed people measure the right side, LILA measurements are taken in the middle between the shoulder and elbow of the left arm. The arm position should be free, without tension or tightness in the shirt and arm muscles. The measuring tool must be in good condition, which means the surface is not folded or uneven. Measuring the upper arm circumference of women of childbearing age (WUS) is an easy way and can be used by ordinary people to identify risk groups for chronic energy deficiency (CED). The LILA measure is an additional method. By measuring Lila, it is difficult to track changes in nutritional status over a short period of time (Prihati et al., 2023).

Measurement of upper arm circumference in adolescents to identify early caloric energy deficiency (KEK). SEZs have a negative impact on children and their lives. Decreased work productivity, anemia, poor growth of body organs, and poor physical development are some of the bad effects (Yulianasari et al., 2019). Adolescents who experience CED during pregnancy can have a negative impact on the fetus, such as miscarriage, stillbirth, neonatal death, defects, anemia, and low

birth weight. CED, on the other hand, can cause obstructed or prolonged labor, premature labor, and bleeding during labor.

4. CONCLUSION

The results of the nutritional status assessment show that the majority of young women at YPAK PTPN III Sei Karang Middle School have good nutritional status, but several others experience deficiencies in macro- and micronutrients, which can have an impact on growth and sexual maturation. To prevent nutritional problems, it is necessary for young women to be given education on how to measure their nutritional status through relevant agencies, and they are also trained to measure their own status.

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