Review of Nutrition Status and The Level of Physical Fitness of High School Students

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Abstract— **The learning process at all levels of education, in essence, aims to improve human quality in various aspects. It can be seen in Law Number 20 the Year 2003 concerning the National Education System viz"National Education aims to develop the potential of students to become people who have faith and are devoted to God Almighty, noble, healthy, knowledgeable, capable, creative, independent and become citizens who are democratic and responsible."In improving the quality of education and the creation of the objectives of National Education, the Government has made various efforts including making Physical Education and Health (Penjaskes) as one of the subjects given to educational institutions, ranging from kindergarten to tertiary institutions, both in terms of formal or informal. Given the importance of sports activities to improve physical fitness, it is necessary to empower sports as early as possible both at school and to the broader community.**

Keywords— *Nutrition, physical fitness*

I. INTRODUCTION

It can be said that Physical Education aims to assist students in improving physical fitness through the introduction and inculcation of positive attitudes and the ability to move from physical activities. In addition, physical fitness is also very needed in obtaining the formation of movement, the formation of achievement, social formation and body growth.

"The scope of subjects in physical education, sports and health includes the following aspects: games and sports, development activities, gymnastic activities, rhythmic activities, water activities, education outside the classroom and health. Based on the scope of physical education can not be separated from the freshness of the body and health "

Physical fitness is a very valuable condition for every student in living their daily life. Especially in following the lesson so that it will have a good effect on student learning outcomes. If a student has a good level of physical fitness, he will be able to do his daily activities well too and can still enjoy his free time. Some characteristics of a person who does not have a good level of physical fitness are looking weak, sleepy, not lazy to move and feel tired quickly. "Physical fitness is really needed by students to get agility, ability, endurance, and high learning ability, such as good endurance is needed by a student in carrying out activities, because endurance is one element of physical fitness that will help a student in carry out daily lessons without causing significant fatigue.

Based on the opinion above, it can be concluded that freshness is the ability of a person to carry out daily activities properly without feeling significant exhaustion and still has a reserve of energy to do other activities, "factors that affect physical fitness, among others. Age, sex, genetic, and physical activity and in this case health includes one's nutrition" [1].

In addition to physical fitness, nutritional factors can also affect a student's state. students who will do physical education learning at school need to consume nutritious food, before going to school. The best health for children is to eat foods that contain lots of nutrients such as carbohydrates, fats, proteins, vitamins, minerals, water and the most important thing to note is the balance of these nutrients, if it is not balanced it can cause malnutrition.

Nutrition is one of the most important factors in improving learning outcomes in children. "Nutritional conditions that are said to be good or normal if there is a balance between the necessities of life for nutrients and the food they consume" [2]. The human body also needs nutrients to obtain energy to carry out daily physical activities, restore bodily processes and to grow and develop, especially for those who are still growing.

Many factors affect nutritional status, among others: behavioral factors (such as the way of thinking expressed in the form of food picking), social environmental factors (such as population and composition and characteristics), economic environmental factors (such as people's purchasing power) , ecological environmental factors (such as soil conditions), food availability (such as facilities and infrastructure of life).

Based on the description above, there are many factors that influence the nutritional status of a child to have good nutrition, one of which is a poor diet, for example, such as frequent consumption of snacks, buy food that is sold on the side of the road contaminated by dust or vehicle pollution. environmental factors where the child lives can affect the life of the child, for example, an unhealthy environment lack of keeping the environment clean around the residence.

II. METHOD

This type of research is classified as descriptive research, in which this study is used to determine the nutritional status and physical fitness level of class XI students of SMAN 11, Padang. "Population is a group of objects studied that has at least one characteristic in common with all its members, the sample is part of the number and characteristics possessed by the population" [3]. "The sampling technique used was "purposive sampling" purposive sampling "is a sample determination technique with certain considerations" As for the sample in this study were class XI students and only 77 male students" [5]. To obtain data, Nutritional Status measurements are taken

Nutritional status tests with anthropometric measurements.

Body Mass Index (BMI)
$$BMI = \frac{Weight\ (kg)}{Height\ (cm)\ ^2}$$

To determine the level of physical fitness, a 60-meter sprint test, a pull-up test, a 60-second sit-up test, a vertical jump test, a 1200-meter run test (16 meters) 19 years Data analysis technique is descriptive analysis, to process data regarding the review of nutritional status and physical fitness level of class XI students of SMAN 11 Padang. Performed using the percentage formula "analysis used using descriptive statistical data analysis techniques that use frequency" [3].

Rumus:

$$P = \frac{f}{n} \text{ x } 100\%$$

Information
P = Percentage
f = Frequency
n = Amount

III. RESULTS

This chapter will describe the results of research on a review of the nutritional status and physical fitness level of male students of SMAN 11 Padang, which consists of a review of nutritional status by measuring weight and height, and a review of students' physical fitness by conducting a sprint test 60 meter (sprint), body lift test (pull up), sit-down test (sit up), vertical jump test (vertical jump), 1200 meter running test. The following are the results of measurement and data analysis:

1. Nutritional Status measurement results

From the data obtained from the calculation of the nutritional status of male students totaling 77 people. The frequency distribution of scores can be seen in the table below.

Table 1.Frequency distribution of male nutritional status variables according to body mass index standards by age (BMI / U).

No	Status Gizi	Frequency Absolute	Frequency Relative
1	Very thin	2	2,60%
2	Thin	6	7,79%
3	Normal	66	85,71%
4	Fat	1	1,30%
5	Obesity	2	2,60%
	TOTAL	77	100%

Can be seen in the table above, the results of the calculation of the nutritional status of male students can be grouped into 5 categories of nutritional status that are included in the category of very thin nutritional status of 2 students, with a percentage (2.60%), then the category of nutritional status of thin students of 6 students with a percentage (7.79%), then the category of normal nutritional status of 66 students, with a percentage (85.71%), then the fat category of 1 student, with a percentage (1.30%), then the obesity category of 2 students, with a percentage (2.60%).

2. Physical fitness level test results

According to the type of data needed, the description of the data is carried out in the form of tests. This aims to see the level of physical fitness of students of SMAN 11 Padang. Based on the previous description, data analysis and discussion of the research results are carried out using descriptive methods, the data that has been processed and then interpreted so that it can reveal as it exists about the study of the level of freshness of the Jassmani. Below this is the frequency distribution of the variables studied:

Based on the above table consisting of 77 male students, no one has physical fitness category Very good, as many as 6 male students (7.79%) have a physical fitness level of 18-21 which is categorized as good, as many as 50 students sons (64.94%) had a physical fitness level of 14-17 that was categorized as moderate, as many as 21 male students (27.27%) had a physical fitness level of 10-13 which was categorized as less, and none had a physical fitness level of 5- 9 are categorized as very poor, while for the very good category (0%) owned by male students of SMAN 11, Padang City. And the data above the average number of physical fitness scores of students of SMAN 11 Padang City is 14.42 and said to be moderate.

IV. DISCUSSION

1. Nutrition Status

"Nutritional Status is an expression of a state of balance in the form of certain variables or it can be said that nutritional status is an indicator of good or bad daily food supply" [5].

"Several factors that influence nutritional status include: (1) economic factors (2) cultural factors, (3) environmental factors, and (4) political factors".From the above quotation, it can be understood that the factors that affect nutritional status, are very dependent on daily eating habits, because good or poor daily eating patterns will have an impact on the high or low nutritional status of a person [4]. Squeezing environmental and economic conditions make a person have a heavy mental burden that causes a person's eating habits sometimes down and sometimes up, cultural conditions are also very influential because there are still many taboos or superstitions that preclude food consumption so that food consumption in the community is still low , then the political situation also influences because the high or low production, distribution and availability of food is determined by political ideology.

From the processing results obtained data that show that the nutritional status included in the category of nutritional status is very thin as many as 2 students, with a percentage (2.60%), then the category of nutritional status as thin as 6 students with a percentage (7.79%), then the category of normal nutritional status was 66 students, with a percentage (85.71%), then the obese category as many as 1 student, with a percentage (1.30%), then the obesity category as many as 2 students, with a percentage (2.60 %).

Considering the importance of nutritional status for students, one of the efforts made to overcome problems for students who have malnutrition status is: 1) Physical education teachers at SMAN 11 Padang should provide students with an understanding and understanding of the importance of nutrition for the body for daily activities. day, 2) Students, as input that the importance of nutrition intake to carry out daily life, 3) parents, as a reference material to be able to provide foods that contain better energy in meeting balanced nutrition.

2. Physical fitness level

At the physical fitness level, none of the students had physical fitness. Very good category, as many as 6 male students (7.79%) had physical fitness levels of 18-21 which were categorized as good, as many as 50 male students (64.94%) had levels physical fitness 14-17 that is categorized as moderate, as many as 21 male students (27.27%) have a physical fitness level of 10-13 which is categorized as less, and no one has a physical fitness level of 5-9 which is categorized as very poor, while for the category very well (0%) owned by male students of SMAN 11 Kota Padang. And the data above the average number of physical fitness scores of students of SMAN 11 Padang City is 14.42 and said to be medium.

With the moderate level of physical fitness of these students is very influential on the learning process, especially Physical Education subjects, because physical fitness is fundamental for humans to initiate any activities that will be carried out, if a person is not refreshed automatically the enthusiasm for activity decreases, if the spirit has decreased then concentration in conducting the learning process is also difficult to do and vice versa.This is very reasonable, because it is in accordance with the function of physical fitness as expressed by Ismaryati (2008: 40), which states that "the function of physical fitness is to develop the capability and ability of each human being to enhance work power".

V. CONCLUSION

Based on the results of the research described in the previous chapter regarding the nutritional status and physical fitness level of class XI students at SMAN 11 Padang, it can be concluded as follows:

1) Nutrition Status

Then the conclusion is found on this problem that the nutritional status that is processed by the formula BMI = BB / TB2 (kg / m2) of all class XI students totaling 77 students selected to be sampled in this study can be concluded that the nutritional status category is very thin as much as 2 students, with a percentage (2.60%), then the thin nutritional status category was 6 students with a percentage (7.79%), then the normal nutritional status category was 66 students, with a percentage (85.71%), then the fat category of 1 student, with a percentage (1.30%), then the obesity category of 2 students, with a percentage (2.60%). From the data above, the average number of nutritional status of male students in class XI is included in the normal category

REFERENCES

[1] Arsil. "Pembina Kondisi Fisik". Padang : FIK UNP, 2000, pp. 47.
[2] Bafirman. "Buku Ajar Pembentukan Kondisi Fisik". Padang:FIK UNP, 2008, pp. 23.
[3] S. Arikunto. "Prosedur Penelitian". Jakarta : Rineka Cipta, 2010, pp. 41.
[4] Nanang. Metode Penelitian Kualitatif, Jakarta : Rajawali pers. 2012, pp 13.
[5] A. Agus. " Olahraga Kebugaran Jasmani". Padang : Sukabina Press, 2012, pp 18.