

The Relationship between Healthy Lifestyle and the Level of Physical Fitness of 8th Graders at State Junior High-school 1 in Sleman

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Keywords: Healthy Lifestyle, Physical Fitness, 8th graders

Abstract: Nowadays, along with the entry of globalization in Indonesia, there are a lot of habits ignoring physical activities and healthy lifestyle in one's life. These habits can certainly influence one's physical fitness. This study aims to analyze whether there is a relationship between a healthy lifestyle and the level of physical fitness of 8th grade students at State Junior High School 1 in Sleman. This correlation study was a survey employing several instruments, such as measurement tests, questionnaires for investigating healthy lifestyle, and TKJI tests for examining physical fitness of 13 to 15-year-old students. The subjects of this study were the 30 students of eighth graders at State Junior High School 1 in Sleman. The data analysis technique used the product moment correlation coefficient (Karl Pearson) at a significance level of 0.05 or 5%. The results obtained by the r hit value showed $(0.960) > r_{tab} (0.361)$ which meant that there was a significant relationship between healthy lifestyle and the level of physical fitness of 8th graders at State Junior High School 1 in Sleman.

1 INTRODUCTION

Physical Fitness in the era of modernization is the main asset that should be owned by everyone, both adults and children. In addition to avoid various kinds of diseases, physical fitness is helpful to carry out various daily activities, so that there is no complaint of fatigue that can hinder their activities.

A good level of physical fitness is needed along with the increasing activities carried out by someone. Anyone with a good level of physical fitness will easily carry out a series of activities in daily activities without feeling fatigue. Physical fitness is defined as the ability of a person to carry out his daily tasks easily without feeling exhausted, and still has the remaining of energy to enjoy his leisure time and to be used for sudden necessities (Sumosardjuno, 2007). The definition of physical fitness is "the ability of a person to do daily work efficiently without having excessive fatigue, so that he can enjoy his free time" (Irianto, 2004). Freshness is classified into three groups, namely 1) static fitness (the condition of a person who is free from disease and disability, or is called healthy); 2) dynamic fitness (the ability of a person to work efficiently that does not require special skills, such

as walking, running, jumping, lifting); and 3) motorized fitness (the ability of a person to work efficiently to meet special skills).

Physical fitness coaching is important to improve physical quality, because it helps a person to carry out activities in their daily lives so that they can improve their quality of life. There are a lot of choices for physical activities that can be done by someone in order to improve his or her quality of life, for example walking, running, cycling, and doing gymnastics. Most people do not know the benefits of these activities, since they only do sport and games for pleasure. Usually, the activities are done without considering the principles of appropriate training programs as they should have.

The function of physical fitness is to improve the working ability for anyone, so that he or she can carry out his or her duties optimally to get better results. Nowadays, a lot of people are aware of their health. Many people are eager to improve their health by exercising, so that they feel healthy and more enthusiastic in their lives. Moreover, for school-age children, physical fitness is very important to make them healthy, active and cheerful, and therefore they can always be passionate and

have good concentration whenever receiving lessons in school, both inside and outside the classroom.

Physical abilities consist of ten *biomotoric* components, namely 1) structure, 2) endurance (consisting of cardio respiratory endurance and muscle endurance), 3) explosive power, 4) speed, 5) flexibility, 6) accuracy, 7) reaction, 8) agility, 9) balance, and 10) coordination (Bompa, 1983). A person who has good physical fitness will have a relatively better quality of the components mentioned above.

Lifestyle is a person's style of living expressed in his activities, interests, and opinions (Kotler, 2002). Lifestyle describes "the whole person" in interacting with their environment. In addition, lifestyle is to show how people live, how they spend money, and how they allocate time (Minor and Mowen, 2002). Therefore, it can be concluded that lifestyle is a pattern of life which is expressed in their activities, interests and opinions in spending their money and allocating their time.

Lifestyle is an illustration for everyone who wears it and describes how much the moral value of the person in the community around him. Lifestyle is an art that is cultivated by everyone. Lifestyle is also very closely related to the times and technology. As time goes on and the technology becomes more sophisticated, there is also a widespread of development in the application of human lifestyles for everyday life.

Healthy lifestyle includes behaviors and activities related to efforts in maintaining and improving health that affect physical fitness. Healthy lifestyle has an important role to improve the health of each individual. It can be done by having a balanced diet, doing regular patterns of activities or sport, and getting enough sleep, so that each individual will be free from disease (Suryanto, 2011). This makes the body healthy, and physical fitness can be maintained properly.

Healthy lifestyle is a simple choice that can appropriately be done by having a healthy diet, thoughts, habits and environment. Being healthy can include anything to reach good and positive results. Healthy living involves adequate and good physical, psychological, environmental and financial aspects. According to the healthy lifestyle tabloid, healthy living is a way of organizing life processes to provide positive conditions for yourself and the environment.

In fact, along with the entry of globalization in Indonesia, life patterns are now becoming sedentary. A sedentary lifestyle is a pattern of life where a person does not do much physical activity or does

not do many movements. People with sedentary lifestyles often ignore physical activities, or tend to do activities that do not require a lot of energy.

Nowadays, children prefer to enjoy games and social networks in the electronic devices rather than playing with peers around their houses. They prefer chatting using electronic devices to directly interacting with their friends. When going to school, children are also spoiled with vehicles owned by their parents even though the distance between their houses and schools is not too far away.

The school has tried to provide students' rooms and play halls, such as table tennis courts in separate rooms, but not all students have optimized all of them. Food sold in school canteens, ranging from fast food to snacks, also does not support students to maintain physical fitness. This problem can certainly be an obstacle for students to maintain physical fitness. On the other hand, there are also students who bring food from home, which is certainly cleaner and healthier.

The desire of parents to have smart children also affects the child's rest time. After school, they are still required to take lessons at the parents' will. Rest, which is considered so important for junior high school students, gradually decreases and this may affect the fitness of students later. However, there are also parents who have paid attention to their child's physical fitness by giving the vitamins to their children to avoid the risk of illness.

According to the explanation above, it can be explained that lifestyle problems affect students' physical fitness. One of the examples is the problem of 8th grade's attendance at Sleman 1 Junior High School which is rarely perfect. Almost every day, there are a number of students who go to the School Health Unit (UKS) complaining about their physical fitness. This problem is suspected due to the lack of movement, lack of sense of achievements in sport, and food and beverages which is not promoting physical fitness sold in the school environment. The expectations and goals of learning to get good results are thus not fully achieved as expected.

Based on the description above, a study is needed to investigate the relationship between healthy lifestyles and the level of physical fitness of eighth grade students at State Junior High School 1, in Sleman, in Special Region of Yogyakarta in the Academic Year of 2015/2016.

2 RESEARCH METHOD

This was a correlational study that aimed to analyze the relationship between healthy lifestyle and physical fitness. This study used a survey method with questionnaires, tests and measurement techniques. This research was conducted on August 8, 2016 at State Junior High School 1 in Sleman. The population employed in this study was 8th grade students with a total of 180 students from 6 classes. Later, samples were randomly selected by choosing 5 children from each class. This research was conducted by filling out a healthy lifestyle questionnaire and conducting the 2010 TKJI test from the Ministry of National Education for ages 13-15 years.

Factors to support a healthy lifestyle consist of food and beverages; personal hygiene; environmental hygiene; illness and disease; balance between activities; rest; and exercise (Notoadmojo, 1993). From each factor, the indicators are arranged. Indicators of eating and drinking are the types of food and beverages consumed, as well as meal schedules. Personal hygiene includes bathing, cleaning hair, cleaning mouth and teeth, clean and harmonious clothes. Environmental hygiene indicators are the role of students in residence and in school. Indicators of illness and disease are health care, disease prevention, medical treatment, and health recovery. Moreover, the balance factor between activities, rest and exercise are seen from adequate rest periods, sleep disturbances, exercise intensity, and health sport.

The instrument used to measure physical fitness in this study was the 2010 Physical Fitness Test (TKJI) from the Ministry of National Education for 13-15 year olds. The reliability of the test set for girls aged 13-15 years has a value of 0.959, while the validity of the test set for boys aged 13-15 years has a value of 0.923. The physical fitness test series for adolescents aged 13-15 years were 50 meters sprint, male body lift test, female bending elbow hanging test, sit-up for 60 seconds, vertical jump, and long distance running 1000 meters for boys and 800 meters for girls.

The normality test aimed to determine whether the data distribution is deviant or not from the normal distribution. The calculation of this study used the SPSS 17.0 tool using the Kolmogorof-Smirnov data analysis technique.

Linearity test was used to predict whether the independent variables were linear to the dependent variable. This test was carried out using the SPSS 17.0 program.

Double linear regression is a regression where the dependent variable is linked / explained more than one variable but still shows a linear relationship diagram. This test analysis used the help of the SPSS program with the Pearson Product-Moment Correlation Coefficient formula.

3 RESULT AND DISCUSSION

Healthy lifestyle measurements were carried out on August 8, 2016. Data were obtained from filling out questionnaires distributed to students. Based on the results from 30 children, research statistics were obtained for healthy lifestyle data, namely minimum score (107); maximum score (142); mean (128.86); median (131); mode (132); and standard deviation (3.8).

The obtained data of the frequency distribution of healthy lifestyle for eighth grade students at State Junior High School 1 in Sleman were as follows.

Table 1: Description of healthy lifestyle data.

Intervals	Category	F	%
>135	Excellent	6	20
128-134	Good	13	43,3
121-127	Moderate	9	30
114-120	Deficient	0	0
<113	Very Deficient	2	6,7
Total		30	100

When displayed in the form of a diagram, the data could be seen in the picture below.

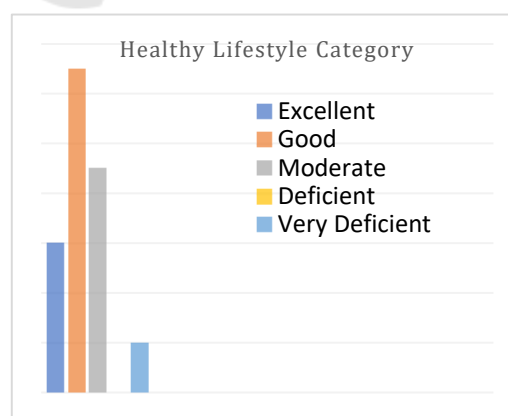


Figure 1: Healthy lifestyle data diagram.

Based on the data shown in the table and figure above, the healthy lifestyle of the eighth grade

students at Junior High School 1 in Sleman were mostly in the good category (43.3%) for 13 children, in the moderate category (30%) for 9 children, in the excellent category (20%) for 6 children, in the category of very deficient (6.7%) for 2 children and there were none in the deficient category.

Based on the results from 30 children, research statistics were obtained for physical fitness, namely minimum score (10); maximum score (20); average (15.3); median (15); mode (15) and standard deviation (2.1). Descriptions of physical fitness research results were presented in the following tables and figures.

Table 2: Description of physical fitness data.

Value	Category	F	%
22-25	Excellent	00	0
18-21	Good	5	16,7
14-17	Moderate	19	63,3
10-13	Deficient	6	20
5-9	Very Deficient	0	0
Total		30	100

When displayed in the form of a diagram, the data could be seen as follow.



Figure 2: Physical fitness data diagram.

Based on the data shown in the table and figure above, it was known that the physical fitness level of Grade VIII students of Junior High School 1 in Sleman was in the good category (16.7%) for 6 children, in a moderate category (63, 3%) 19 children, in the deficient category (20%) for 5 children. However, none fell into the category of excellent and very deficient.

Normality testing, using the Kolmogorov-Smirnov test with the criteria, helped to determine the normal distribution. The distribution is declared as normal if $p > 0.05$ (5%), and abnormal if $p < 0.05$ (5%).

After carrying out the normality test with the SPSS 17 Kolmogorov-Smirnov, it was found that significant value of a healthy lifestyle level of $0.427 > 0.05$ and significant value of physical fitness level of $0.759 > 0.05$.

In conclusion, the data for healthy lifestyle and physical fitness were normally distributed since the significance value of the two variables is greater than 0.05.

Linearity test aimed to determine linearity between healthy lifestyle variables and physical fitness level. The relationship test between the two variables was carried out with the SPSS 17 program. Using SPSS 17, the linearity of relationship could be drawn by looking at the criteria table values. It was regarded as linear relationship if the sign > 0.05 . However, it was considered as non-linear relationship if the sign < 0.05 .

Based on the data obtained, the significance value was 0.015. Thus, the conclusion of the significance value of 0.015 was < 0.05 , which meant there was no significant linear relationship between the variables x healthy lifestyle with variable y physical fitness.

The hypothesis is a temporary answer to the problem that has been formulated, therefore the hypothesis must be tested empirically. Testing is done to find out whether the collected data supports the hypothesis or, on the contrary, rejects the proposed hypothesis. For this reason, in this study the product moment correlation (Karl Pearson) with SPSS 17 analysis was used.

Based on the sample for the test with 30 students with a significance of 5%, could be the value of df , $df = n-2$ $(30-2) = 28$. To read the r table could be seen in table r product moment at 5% significance, and the value of r table showed 0.361 (correlation coefficient r for significant level).

The test of $r_{x,y} = 0.960 > r$ table showed 0.361 meaning that there was a significant relationship between a healthy lifestyle and physical fitness level.

Physical fitness is the ability of a person to carry out daily tasks easily without feeling exhausted and to have a reserved of energy to enjoy leisure time and for sudden needs. Good physical fitness can be obtained with the support of various factors.

This study intends to find out the relationship between healthy lifestyle and the level of physical fitness of 8th grade students at Junior High School 1 in Sleman. From the results of data analyses, the value of the correlation coefficient (r hit) is $0.960 > r$ tab was 0.361. The results showed that there was a significant relationship between healthy lifestyle and

physical fitness of 8th graders at Junior High School 1 in Sleman. It is proven that a healthy lifestyle plays a crucial role in improving children's physical fitness. The better healthy lifestyle, the better physical fitness level. A person's physical condition can be maintained by applying a healthy lifestyle.

Healthy lifestyle can be based on food and beverages; personal hygiene and the environment; illness and disease; exercise; and rest. Foods and beverages must contain substances needed by the body, such as carbohydrate, protein, fat, minerals, vitamins and water. The function of nutritious food is producing energy substances, building materials and regulating substances. Energy sources are very necessary for the body to do daily activities, so that adequate and good nutrition will support the body in carrying out activities. Lack of energy will make the body weak and unable to carry out activities properly. In order to be able to meet the energy, a good diet is needed. A healthy diet is reflected by the regularity of consuming hygienic and nutritious food and paying attention to the time and its ingredients.

Personal hygiene is the first and foremost thing before others. The goals of personal hygiene are (1) to know the benefits of personal hygiene, (2) to be able to clean their own body parts, and (3) to be able to apply self-hygiene treatments for healthy living. Personal hygiene and the environment are related to one's physical condition. By maintaining personal hygiene, one will be able to avoid certain types of diseases.

Illness and disease are related to the efforts carried out starting from maintenance, prevention, and recovery actions. Rest and physical exercises related to sports activities and daily activities should be carried out. Students of junior high school are considered to be active students. Their movements in school and outside school can indirectly be a means of increasing physical fitness, since physical fitness will increase along with increasing physical activity. The higher physical activity carried out every day, the better physical fitness gained.

To achieve good physical fitness, some activities must be done in order to improve the physical fitness of students, for example by doing regular sports activities with adequate rest. By doing that, physical fitness will be well-maintained. Finally, to maintain one's physical fitness, one should always maintain healthy living behavior.

4 CONCLUSIONS

Based on the result of research and discussion, conclusions could be obtained as follows.

From the results of calculations obtained, the value of the correlation coefficient (r) was 0.960 and it could be interpreted that there was a significant relationship between healthy lifestyle and the level of physical fitness of 8th graders of State Junior High School 1 in Sleman.

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