



Analysis of Students' Physical Activity Behavior in Learning and Lecture Activities

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ABSTRACT

Physical activity is one of the routine activities of a person in a day, various physical activities are carried out with various intensities ranging from light, moderate and heavy activities. Physical activity has an important role in maintaining one's health. The benefits of physical activity from a physiological perspective include: strengthening cardiopulmonary endurance, strengthening muscles, maintaining bone density and as a refreshing activity. The study used a questionnaire that adopted the Global Physical Activity Questionnaire (GPAQ), data analysis using descriptive statistics assisted by SPSS 22. Results: research conducted on students with a total of 52 respondents obtained the following results: 100% stated that doing physical activity that needs to be done, the average duration of doing submaximal physical activity is done 3 times a week, the average duration of doing submaximal physical activity is 62 minutes a week, the average duration of doing maximum activity is done 2 times a week, the average duration of doing maximum activity is done 55 minutes a week. The results of the survey conducted on students averaged 62 minutes a week, below the average sub-maximal activity in a week, so it has not reached the minimum recommended standard according to WHO. Meanwhile, only 9.6% reached the minimum standard according to WHO for 150 minutes

INTRODUCTION

Lifestyle changes, from traditional to sedentary lifestyles, increase the risk of being overweight. A sedentary lifestyle is accompanied by an excessive diet of carbohydrates, fat, protein and low fiber intake. All these factors are at risk of causing overweight and obesity (Proverawati, 2010). According to WHO, as cited by Giam and Teh (1993:8), the definition of health is a state of physical, mental and social well-being. WHO's goal is to achieve the highest possible level of health for all people. One of the factors associated with health is the level of physical fitness. Physical fitness is defined as "the ability to do daily work with vigor and alertness, without excessive fatigue and with sufficient energy, so as to enjoy leisure and overcome unexpected circumstances". Physical fitness is influenced by physical activity. Physical activity is any body movement produced by skeletal muscles that requires energy expenditure.

Physical inactivity is an independent risk factor for chronic diseases, and overall is estimated to be the cause of death globally (WHO, 2010). According to Rosdiani (2013: 170), the lower the physical fitness, the symptoms of hypokinetic disease (lack of movement) also increase. Lack of movement will cause a greater risk of degenerative disease (decreased function of organs). Physical activity consists of activities during work, sleep, and leisure time. Physical activity varies from one individual to another depending on the individual's lifestyle and other factors such as gender, age, occupation and others. Physical activity is highly recommended for all individuals to maintain good health. Physical activity is also key to determining energy use and the basis of energy balance (Kristanti, 2002). Higher levels of daily physical activity or regular physical exercise are associated with lower mortality and overall mortality risk (Gibney, 2009). According to Utari (2007:23), physical fitness is a condition owned or achieved by a person in relation to the ability to perform physical activities. Physical fitness is related to health if physical activity can be performed without excessive fatigue, can be maintained for life and as a consequence has a lower risk of developing chronic diseases early on. A physically fit person can perform daily physical activities with vigor, has a low risk of health problems and can enjoy sports and other activities. According to Almatsier (2003), the definition of physical activity is physical movement performed by the muscles of the body and its support system.

According to WHO (2010), physical activity is any body movement produced by skeletal muscles that requires energy expenditure. Physical inactivity is an independent risk factor for chronic diseases, and is estimated to cause overall mortality globally. According to Kristanti (2002), physical activity is any body movement produced by skeletal muscle activity that results in energy expenditure. Physical activity consists of activities during work, sleep, and leisure time. Everyone does physical activity, or it varies from one individual to another depending on the individual's lifestyle and other factors such as gender, age, occupation, and others.

Physical activity is highly recommended for all individuals to maintain good health. Physical activity is also key to determining energy use and the basis of energy balance. Different types and amounts of physical activity are required

for different health outcomes. Physical activity can also be assessed in terms of the total volume of physical activity or the energy expenditure associated with physical activity. Most existing assessment instruments can capture the frequency, duration and intensity as well as the total volume of physical activity. When assessing physical activity for health, the total volume of physical activity can be particularly important as this dimension appears to have a very significant impact on health status. To measure the level of physical activity, a questionnaire method was used. The questionnaire used was The Physical Activity Questionnaire for and Adolescents (PAQ-A).

Sedentary lifestyle is a lifestyle that does not meet the standard of physical activity performed in a day. A person with a sedentary lifestyle often ignores physical activity and prefers activities that do not require much energy. It can be seen that today there is a tendency for children who are actively playing outdoors to prefer to sit passively in front of computer and television screens (Gestile, 2011). Living a sedentary lifestyle is not always synonymous with laziness, as one can be very busy with work and family without having time to exercise. There is a study that shows that people with sedentary lifestyles have a high risk of obesity (Hu, 2003).

LITERATURE REVIEW

According to WHO (2010), physical activity is any body movement produced by skeletal muscles that requires energy expenditure. Physical inactivity is an independent risk factor for chronic diseases, and is estimated to cause overall mortality globally. According to Kristanti (2002), physical activity is any body movement produced by skeletal muscle activity that results in energy expenditure. Physical activity consists of activities during work, sleep, and leisure time. Everyone does physical activity, or it varies from one individual to another depending on the individual's lifestyle and other factors such as gender, age, occupation, and others.

METHOD

This research design is cross sectional with a quantitative method approach. Data collection was done through a questionnaire using Google Form so that data was obtained online. The participants in this study were adult students at UIN Sayyid Ali Rahmtullah Tulungagung. The criteria for participants were 1) adult age 16-64 years; 2) status as a student; 3) can access the questionnaire online; and 4) willing to participate in this study. Advertisements about this study were distributed through the media and social networks along with an explanation of the participation criteria. Potential participants could participate voluntarily by accessing the link from the questionnaire. Explanation and informed consent were confirmed before going into the questionnaire items.

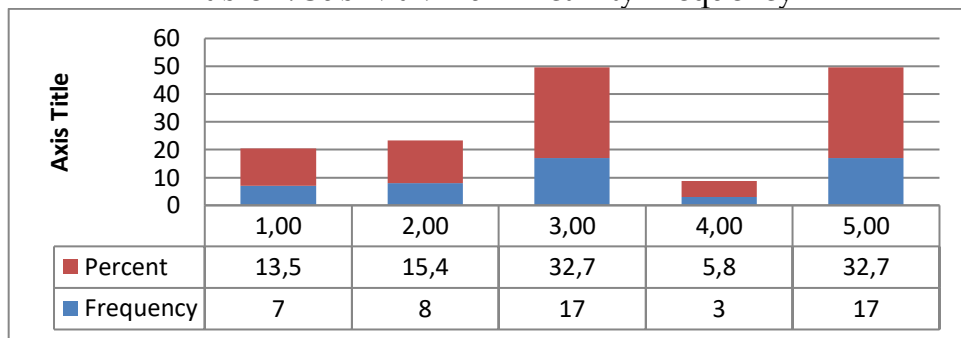
The research questionnaire was designed to describe the physical activity of students with submaximal physical activity, maximal physical activity, sedentary activity and sleep activity. The questionnaire to measure the level of physical activity used in this study is the Global Physical Activity Questionnaire (GPAQ) which is a questionnaire developed by WHO. It has been adopted and translated into Indonesian and used as part of the 2013 Riskesdas and various

studies on physical activity in Indonesia. This questionnaire measures the amount of time spent on physical activity in students' daily physical activities. Data analysis used descriptive statistics with the help of SPSS 22, to describe physical activity.

RESULT

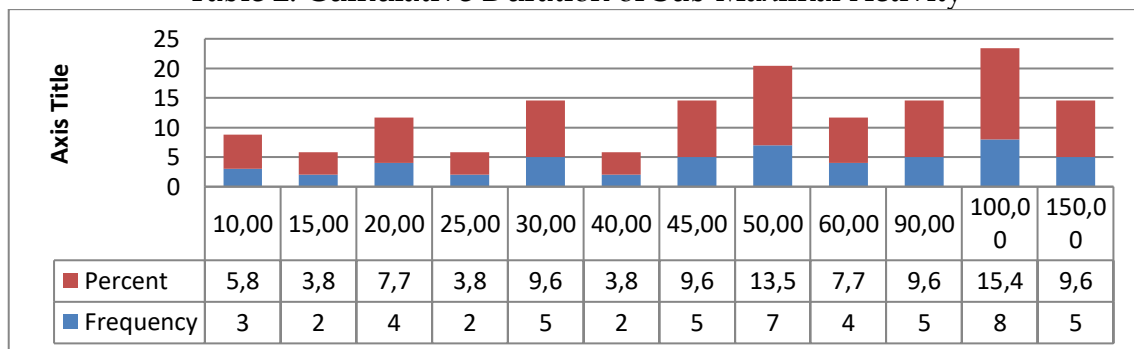
The results of research conducted to determine the physical activity behavior of 52 students by filling out a questionnaire obtained the following results, 100% stated that physical activity needs to be done. The frequency of students doing less than maximum physical activity in a week is described in table 1.

Table 1. Sub-Maximum Activity Frequency



As explained in table 1, 13.5% of students answered 1 time, 15.5% of students answered 2 times, 32.7% of students answered 3 times, 5.8% of students answered 4 times, and 32.7% of students stated 5 times. While the average student does it 3 times a week. The duration of time students do submaximal or moderate physical activity in a week is described in table 2.

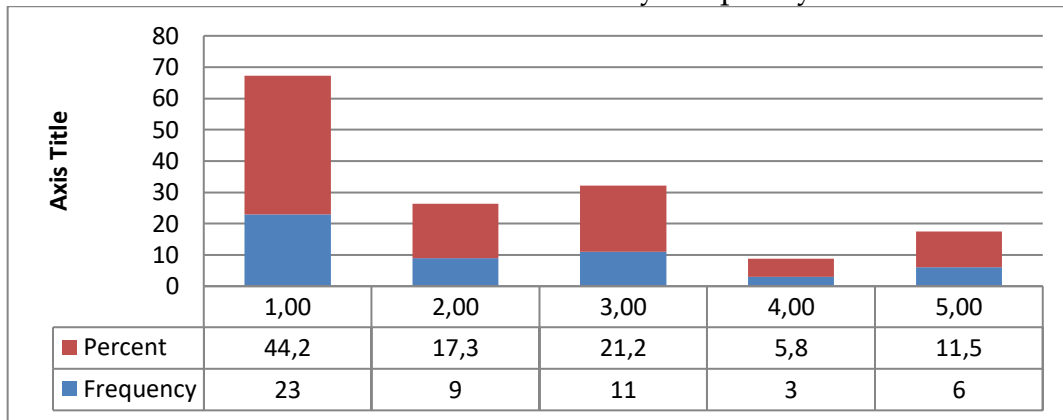
Table 2. Cumulative Duration of Sub Maximal Activity



Explanation in table 2, 5.8% of students said they did for 10 minutes, 3.8% of students said they did for 15 minutes, 7.7% of students said they did for 20 minutes, 3.8% of students said they did for 25 minutes, 9.6% of students said they did for 30 minutes 8% of students said they did for 40 minutes, 9.6% of students said they did for 45 minutes, 13.5% of students said they did for 50 minutes, 7.7% of students said they did for 60 minutes, 9.6% of students did for 90 minutes, 15.4% of students did for 100 minutes, and 9.6% of students did for 150 minutes.

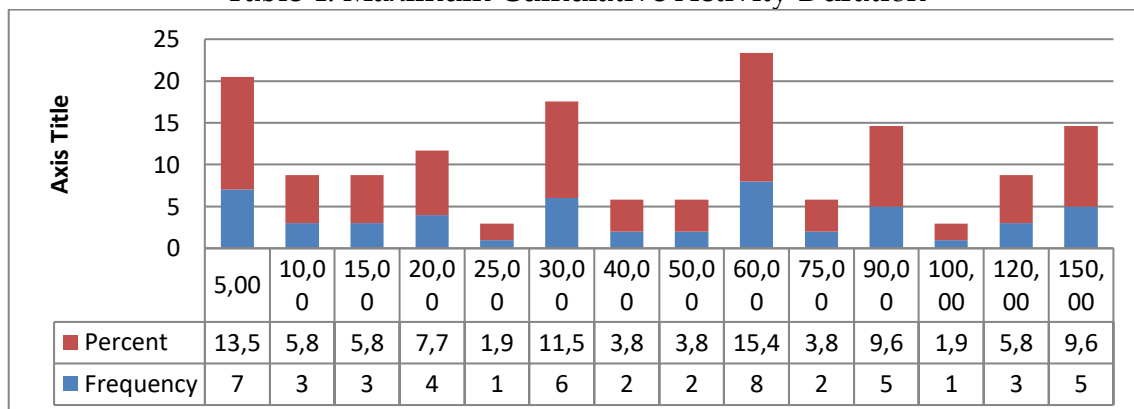
While the average student did for 62 minutes in a week. The frequency of students doing maximum physical activity in a week is described in table 3.

Table 3. Maximum Activity Frequency



As explained in table 3, 44.2% of students answered 1 time, 17.3% of students answered 2 times, 21.2% of students answered 3 times, 5.8% of students answered 4 times, and 11.5% of students answered 5 times. While the average student does it 2 times a week. The duration of time students do maximum/heavy physical activity in a week is explained in table 4

Table 4. Maximum Cumulative Activity Duration



In table 4, 13.5% students said that they did it for 5 minutes, 5.8% students said that they did it for 10 minutes, 5.8% students said that they did it for 15 minutes, 7.7% students said that they did it for 20 minutes, 1.9% students said that they did it for 25 minutes, 11.5% students said that they did it for 30 minutes, 3.8% students said that they did it for 40 minutes, 3.8% students said that they did it for 50 minutes, 15.4% of students said that they did it for 60 minutes, 3.8% of students said that they did it for 75 minutes, 9.6% of students said that they did it for 90 minutes, 1.9% of students said that they did it for 100 minutes, 5.8% of students said that they did it for 120 minutes, and 9.6% of students said that they did it for 150 minutes. Meanwhile, the average student did 55 minutes a week. For sedentary activities or non-physical activities such as looking at a cell phone or laptop screen for an average of 2 hours a day and sleeping 6.8 hours a day

DISCUSSION

The results of research conducted on UIN Sayyid Ali Rahmatullah Tulungagung students with 52 respondents obtained the following results: 100% stated that physical activity needs to be done, the average sub-maximal physical activity is done 3 times a week, the average duration of sub-maximal physical activity is 62 minutes a week, the average maximum activity is 2 times a week, the average duration is 55 minutes a week. According to WHO physical activity for adults aged 18-64 years for sub-maximal activity is at least 150 minutes a week, from the results of a survey conducted on students an average of 62 minutes a week, below the average sub-maximal activity in a week, so it has not reached the minimum standard recommended by WHO. This is also said by other researchers, that the average fitness level of students is still relatively low (Ali, M. 2012). Senanda and Darmawan (2017), said the level of physical fitness of Indonesian students is still low. Cerika R (2012), said that the suitability of nutrition and physical fitness in students is still low.

While only 9.6% reached the minimum standard according to WHO for 150 minutes. For maximum activity according to WHO adults aged 18-64 years 75 minutes a week, and from surveys conducted on students on average they have 55 minutes a week, below the average maximum / heavy physical activity, so they have not reached the recommended minimum standard. According to WHO. While those who reached the minimum standard according to WHO were only 3.8% for 75 minutes, 9.6% for 90 minutes, 1.9% for 100 minutes, 5.8% for 120 minutes and 9.65 for 150 minutes. While the average sleep activity is 6.8 hours a day, this is in accordance with WHO recommendations where the average adult sleeps 6-8 hours a day. For sedentary activities or non-physical activities such as looking at a cellphone or laptop screen an average of 2 hours a day and sleeping for 6.8 hours a day. According to the results of research conducted by Faiq et al (2018), that the level of sedentary medical students is high. According to Rahima (2022), the results of his research also say that the sedentary behavior of students is quite high. Sedentary behavior in public health study program students is high (Aprilya, A. R. 2022). The results of the analysis show that the level of sedentary behavior of students of the Faculty of Nursing during the COVID-19 pandemic is included in the heavy category (Ramadhan, S., et al., 2022).

CONCLUSION

The results of the study found a picture related to the physical activity of students, because physical activity is one of the behaviors that is currently being campaigned for in government programs in the health sector. Students are part of the adult population who are at risk of physical inactivity due to the amount of time spent studying and activities that tend to be sedentary. The findings of this study are expected to be a message conveyed in an effort to increase physical activity of adults, especially students. Efforts made can be in the form of interventions or physical activity improvement programs carried out by educational institutions that aim to reduce negative perceptions of perceived barriers related to physical activity while increasing positive perceptions of the benefits obtained by doing physical activity. Providing various information about the benefits of adequate physical activity, at least to improve health, by planning

as much time as possible to be able to do physical activity in the midst of busyness. From the results of the discussion where the average physical activity of students is still below the recommendations of WHO, it is necessary to have support from all parties in increasing physical activity in order to achieve the expected degree of health

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REFERENCE

- Aprilya, A. R. (2022). The Relationship between Sedentary Lifestyle and Dysmenorrhea Intensity in Midwifery Student, Faculty of Medicine, Sebelas Maret University.
- Ali, M. (2012). The contribution of nutritional status and learning motivation to the physical fitness of Porkes Unja students. *Intelligent Educational Character*, 1(1).
- Rismayanthi, C. (2012). Relationship between nutritional status and level of physical fitness on student achievement. *Educational Journal of Learning Innovation Research*, 42(1).
- Darmawan, I. (2017). Efforts to improve students' physical fitness through physical education. *Journal of Educational Inspiration*, 7(2), 143-154.
- Djoko screamed Irianto. 2004. *Practical Guidelines for Exercising Fitness and Health*. Yogyakarta: Andi Offset.
- Faiq, A. R., Zulhamidah, Y., & Widayanti, E. (2018). Description of sedentary behavior and body mass index of YARSI University Medical Faculty students in the first and second year of education. *Sainstekes Magazine*, 5(2).
- Giam and Tea. 1993. *Sports Medicine*. West Jakarta: Script Binarupa.
- Giriwijoyo and Sidik. 2012. *Sports Physiology*. Bandung: Rosdakarya Youth. Sport.
- Gibney, Michael J. (et al). 2009. *Public Health Nutrition*. Jakarta: EGC
- Hudha, L. 2006. "The relationship between diet and physical activity with obesity". Thesis. Semarang: Semarang State University.
- Irwansyah. 2006. *Sports and Health Physical Education*. Jakarta: PT Grafindo Media Pratama.
- Kowalski, Kent C. 2004. *The Physical Activity Questionnaire for Older Children (PAQ-C) and Adolescents (PAQ-A) Manual*. Canada.
- Notoatmodjo, Soekidjo. 2010. *Health Research Methodology*. Jakarta: Asdi Mahasatya.
- Nenggala, Asep kurnia. 2006. *Sports and Health Physical Education*. Jakarta: PT Grafindo Media Pratama.
- Proverawati. 2010. *Obesity and Eating Behavior Disorders in Adolescents*. Yogyakarta: Nuha Medika
- Center for Physical Fitness and Recreation. 2000. *Indonesian Physical Freshness Test for Adolescents Aged 16-19 Years*. Jakarta: Center for Physical Fitness and Recreation

- Pramesti RAAY. The relationship between knowledge factors, family history of diabetes mellitus and modifiable factors with the incidence of type 2 diabetes mellitus in the North Thousand Islands District, Thousand Islands Administrative District in 2016. University of Indonesia; 2016. 22.
- Rosdiani, Early. 2013. Learning Planning in Physical Education and Health. Bandung: Alfabeta.
- Ramadhan, S., Ridwan, A., & Dineva, F. (2022). LEVELS OF SEDENTARY BEHAVIOR IN THE COVID-19 PANDEMIC PERIOD OF NURSING FACULTY STUDENTS. *Student Scientific Journal of the Faculty of Nursing*, 6(1).
- RAHIMA, V. (2022). RELATIONSHIP BETWEEN NUTRITION INTAKE, LEVEL OF PHYSICAL ACTIVITY, AND SEDENTARY LIFESTYLE WITH STUDENT NUTRITIONAL STATUS (Study on Students with Nutrition Competence at Diponegoro University) (Doctoral dissertation, Diponegoro University).
- Sarwono, Sarlito Wirawan. 2001. Adolescent Psychology. Jakarta: Raja Grafindo Persada.
- Sechrist KR, Walker S., Pender NJ. Health Promotion Model - Instruments to Measure HPM Behavioral Determinants: Exercise Social Support Scale. 1995; Available from: <http://deepblue.lib.umich.edu/handle/2027.42/85345>
- Wirakusumah, Emma Pandi. 2010. Healthy way of Al-Qur'an & Hadith. Jakarta: PT Mizan Publica.
- World Health Organization. Global Physical Activity Questionnaire. 2010;380(9838):282-93. Available from: http://www.who.int/chp/steps/resources/GPAQ_Analysis_Guide.pdf 21.
- Zuhdi, Najmuddin. 2010. Islamic Studies. Surakarta: Institute for the Development of Basic Sciences