**Readiness of Students’ Physical Activity Levels to Face the Beginning of Learning after Pandemic Transition**

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**Abstract**

School is a suitable setting for intervention program which is have a goal to promote physical activity and get benefit to be healthy. However, there is a growing concern that, situation of covid-19 pandemic that occurred in Indonesia has brought especially for teenagers to stay at home, online learning, and limitations in carrying out activities. The aim of this study was to measure and assess general levels of physical activity of children. This research method uses descriptive quantitative research method with a cross-sectional approach. This research was conducted at SMP Lab. School UPI with sampling technique used total sampling. The instruments used the PAQ-C (Physical Activity Questionnaire for Older Children) questionnaire to measure physical activity. The data analysis techniques in this study used percentage descriptive data analysis techniques. The results showed that the levels of physical activity students is 22% is quite low activity , 70% is moderate activity, and 8% is quite high activity. It can be concluded that physical activity of students in SMP Lab. School UPI is still good because almost relatively moderate activity and

which has also been observed by authors is students almost all students are ready to carry out normal school and normal activities.

**Keywords:** Physical Education, Covid-19, Physical Activity

**Introduction**

Coronavirus disease 2019 or we called it with COVID-19 is causing disruptions in the global social system especially Indonesia (Zaharah et al., 2020). The Indonesia government mandated activity restrictions imposed, and interactions outside the home reduced. Situation of covid-19 pandemic that occurred in Indonesia has brought especially for teenagers to stay at home, online learning, and limitations in carrying out activities (Komariyah et al., 2021). This situation can have a considerable impact on students, in addition, teachers must be able to adapt learning to new habits with Covid- 19 situation.

Physical education is defined as education through and from physical activity. Physical education is an integral part of overall education which is structured systematically through the provision of experience of movement tasks to assist the development and growth of comprehensive individuals. Basic things that affect fitness is physical activity (Hasan Muhamad Fahmi et al., 2019). Thus, physical education has a goal that is in line with the purpose of education in general, namely to make a very valuable and inspiring contribution to the welfare of human life. The meaning contained in physical education is not just physical education or physical activity but is more broadly related to the overall educational goals and contributes to individual life, the implementation of physical education must lead to the overall educational goals. In connection with this, a learning model is needed that is following the objectives of physical education where individuals are required to be able to survive in this modern era. The situation that has changed humans both in life and work is known as the Internet of Things (IoT) which means the world is introduced to machines and data that can be accessed by anyone and anywhere and connected to fellow humans.

In the learning process, Physical Education is not far from physical activity. So it is hoped that there will be an increase in students' physical fitness where students will be healthier and more focused when learning takes place. Physical activity is any body movement produced by skeletal muscles that requires energy expenditure (Bull et al., 2020). Increased physical activity is intended so that when carrying out daily activities without experiencing significant fatigue, and being able to avoid hypokinetic diseases so that they can enjoy life well with the aim of improving the health status of students without causing excessive fatigue after exercising. State that physical activity is very important for overall developmental growth in children (Stork & Sanders, 2008). Physical activity is a movement of limbs that produces energy, which can help in maintaining physical, mental, and quality of a healthy lifestyle (Utami et al., 2016).

Physical activity is all body movements produced by skeletal muscle movements and results in energy expenditure (Caspersen et al., 1985). Physical activity is defined as physical movement that causes muscle contractions, carried out at rest, after school, in the afternoon and at the end of the week (Murbawani & Firiana, 2017). Reinforced by Wiarto that physical activity is defined as sports with musculoskeletal system activities that are carried out in a structured and systematic manner with predetermined intensity, frequency, type, and time (Prasetyo & Winarno, 2019). Physical activity is broadly defined as daily sports, work, leisure activities, and active transportation (Strath et al., 2013). Time spent for the actual activity defined as the number of hours per week spent during leisure time in front screens, such as computers, video games, televisions, and tablets (Koezuka et al., 2006). Activities like watch TV every day for 2 hours or more to do with decline fitness and psychology.

The following are the dimensions of physical activity according to (Strath et al., 2013) namely:

1. Mode, means specific activity performed (eg, walking, gardening, cycling). Mode can also be defined in the context of physiological and biomechanical demands/types (eg, aerobic versus anaerobic activity, resistance or strength training, balance and stability training).
2. Frequency, means number of sessions per day or per week. In the context of health- promoting physical activity, frequency is often qualified as number of sessions (bouts) ≥10 min in duration/length.
3. Duration, means time (minutes or hours) of the activity bout during a specified time frame (eg, day, week, year, past month).
4. Intensity, means rate of energy expenditure. Intensity is an indicator of the metabolic demand of an activity. It can be objectively quantified with physiological measures (eg, oxygen consumption, heart rate, respiratory exchange ratio), subjectively assessed by perceptual characteristics (eg, rating of perceived exertion, walk-and-talk test), or quantified by body movement (eg, stepping rate, 3-dimensional body accelerations).

The following are the domains of physical activity according to (Strath et al., 2013) namely:

1. Occupational 🡺 work-related: involving manual labor tasks, walking, carrying or lifting objects.
2. Domestic 🡺 housework, yard work, child care, chores, self-care, shopping, incidental.
3. Transportation/utilitarian 🡺 purpose of going somewhere: walking, bicycling, climbing/descending stairs to public transportation, standing while riding transportation.
4. Leisure time 🡺 discretionary or recreational activities: sports, hobbies, exercise, volunteer work.

The following are some factors that influence physical activity according to the British Heart Foundation (Bintoro & Kuntjoro, 2021), namely:

1. Age, the difference in age from adolescence to adulthood, physical activity will reach its maximum level, but when entering old age it will decrease because the functional capacity of the body also decreases.
2. Gender, during puberty, the physical activity of boys is usually almost the same or equivalent to that of girls, but after puberty, boys usually have a much greater physical activity value.
3. Dietary habit, food is one of the factors that affect physical activity, because if the amount of food and food portions are more, the body will feel tired easily, and do not want to do activities such as sports or other activities. In addition, because the content of food that is absorbed by the body. If the food is lacking in nutrients, the body will get tired easily so that physical activity will decrease.
4. Diseases/abnormalities in the body, this can affect heart-lung capacity, posture, obesity, hemoglobin/blood cells and muscle fibers. If there are abnormalities in the body, it will affect the activities carried out so that activities are limited and it is advisable not to overdo it.

The following activities are recommended by WHO (Bull et al., 2020) for children and adolescents aged 5-17 years:

1. Should do at least an average of 60 minutes per day of moderate to vigorous intensity, mostly aerobic physical activity, throughout the week.
2. Should incorporate high-intensity aerobic activity, as well as those that strengthen muscles and bones, at least three days a week.
3. Should limit the amount of time spent sedentary, especially the amount of recreational screen time.

The urgency of this research is when students are required to study at home or PJJ (Distance Learning) students are often found who are sometimes lazy to do anything, especially for activities, then when students have to face 100% normal school, how much readiness are students and what is their level of physical activity.

**Methods**

This research method uses descriptive quantitative research method with a cross-sectional approach. The data analysis techniques in this study used percentage descriptive data analysis techniques.

**Population and Sample**

This research was conducted at SMP Lab. School UPI grade VIII (85 students) with sampling technique used total sampling.

**Instrument**

The instruments used the PAQ-C (Physical Activity Questionnaire for Older Children) questionnaire to measure physical activity (Kowalski et al., 2004).

**Results**

The data analysis techniques in this study used percentage descriptive data analysis techniques.

Table 1. Result of physical activity students

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **N** | **Minimum** | **Maximum** | **Mean** |
| PA | 85 | 1.1 | 3.8 | 2.3 |
| PA | 85 |

From the table above, result of physical activity students show that minimum level is 1,1 (activity is quite low) and the maximum level of physical activity is 3,8 (activity is quite high). And mean show 2,3 (activity is moderate activity). The following is the percentage of student activity levels:

Figure 1. The percentage of student’s activity levels

From the figure 1 above, the results showed that the levels of physical activity students is 22% (19 students) is quite low activity , 70% (59 students) is moderate activity, and 8% (7 students) is quite high activity. It can be concluded that physical activity of students in SMP Lab. School UPI is still good because almost relatively moderate activity and which has also been observed by authors is students almost all students are ready to carry out normal school and normal activities.

**Discussion**

Based on the current situation in Indonesia, Covid-19 is becoming very popular right now. Covid-19 in Indonesia is quite high for countries in the world. This matter make the government do various ways in dealing with COVID-19. One of the ways that what the government is currently doing is making some policies to the whole community Indonesia, in an effort to stop the spread Covid-19 is getting more and more widespread. As for the policy made like learning online, online jobs, and appeals for at home. This policy that has been made may affect of status nutrition and physical activity in students (Leonardo et al., 2021). This research is to know the measure readiness of student's physical activity in the new normal or the COVID-19 pandemic, where activities are limited but required to stay healthy and fit. Low physical activity can cause mental disorders during a pandemic so that mental disorders make a person's immune more susceptible to disease or viruses (Callow et al., 2020). Another impact is online learning (on the network) or PTMT (Limited Face-to-face Learning). During a pandemic, students' physical activity tends to decrease due to the absence of learning at school and reduced activity due to restrictions imposed by the government in order to break the chain of virus spread (Bintoro & Kuntjoro, 2021).

Various studies were carried out by academics to solve problems the. More than 1.9 million deaths in the world, every year can be prevented by the level of adequate physical activity (Guthold et al., 2010). Even young people in countries develop have habit level low physical activity (Chen et al., 2005). This figure is not only dangerous for those who are elderly, will be very at risk if children or adolescents who have low physical activity habits. The impact can occur is not optimal growth period, up to various disease disorders when young, after that risk of decreasing life expectancy (Khairy et al., 2010).

Moreover, the level of physical activity is more decreased during adolescence, and this habit has the potential to continueto adulthood (Tammelin et al., 2003). Thing it makes a determination that increased activity during adolescence reduce the risk of obesity in adulthood. Some causes of decreased physical activity due to habit of using electronic devices, it goes hand in hand with increasing obesity (Tremblay et al., 2011).

In addition, Guyton's theory (Sandayanti et al., 2021) states that someone who often does exercise or physical activity has a better metabolic function than people who rarely exercise or do not do it at all. This is because exercise can facilitate the circulation system so that the nutritional and energy needs for the brain are fulfilled and make the brain work optimally. In addition, students who have high levels of physical activity tend to show low anxiety. (Nuryadi et al., 2019, 2015)

The results of the survey of children's physical activity during the new normal period in junior high schools in east semarang district also showed tha during the new normal students more often do physical activity, namely walking, cycling and jogging. In addition, the research data also showed that students do more exercise in the afternoon with a frequency of 2-3 times a week (Maulana, 2021; Negara et al., 2022). This also happened to the sample of this study. Students can be said to be ready to face normal learning because they already have a more basic level of activity (moderate) and are used to quite a lot of activities.

In addition, the previous year stated that the average level of physical activity of junior high school students the city of Bandung is in the medium category, this is because the free time students have a lot to spend with online game’s (Hasan Muhamad Fahmi et al., 2019). In addition, the impact extracurricular sports and subjects sport helps students to increase physical activity. So it is hoped that sports subjects will remain maintained in every semester, including in final semester when students prepare before the final exam. For the sake of creation strong body and sound mind.

**Conclusion**

Based on the results of research data analysis and discussion, the researcher concluded there is levels of physical activity students is 22% is quite low activity, 70% is moderate activity, and 8% is quite high activity. It can be concluded that physical activity of students in SMP Lab. School UPI is still good because almost relatively moderate activity and which has also been observed by authors is students almost all students are ready to carry out normal school and normal activities.

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