

Conference Paper

Impact of Physical Activity on the Balance and Fitness of Elementary School Children During the Covid-19 Pandemic

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ORCIDAtika Yulianti: <https://orcid.org/0000-0002-0988-8494>**Abstract.**

The Covid-19 pandemic has caused a decline in activity both at the office and in schools. To stop the spread of the Covid-19 virus, the government decided that the learning process in elementary schools would be carried out using online systems. This has led to a decrease in psychomotor activity that is usually maintained through playing and routine sports activities at school. Physical activity increases motor physical development which later affects children's skills in moving. Fitness is the body's ability to carry out physical activities without causing excessive fatigue. Balance is the body's ability to maintain a position in carrying out daily activities. These two components are very important in the development period of elementary school children to support other developments and avoid injury. The purpose of this study was to determine the level of change in physical activity in elementary school children during this pandemic and to examine how this has affected the fitness and balance of the children. The researchers used a cross-sectional design with an analytical survey which investigated the correlation between risk factors and the effects of the two variables.

Keywords: balance, physical activity, school from home, Covid-19 pandemic

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1. Introduction

Coronavirus disease 2019 (Covid-19) is a virus that emerged in 2019. This viral pandemic emerged by having several impacts on the country of Indonesia. One of the impacts given by the COVID-19 pandemic is in the field of education. Currently, schools are closed face-to-face and schools are conducted online to reduce direct contact, this is done to reduce the spread of the virus [1].

In the current pandemic period, subjects can be viewed from two aspects, namely the first lessons related to theory and a little practice, and second lessons related to practice a little theory. These two aspects are very different in the application of online learning. Sports education is included in the second aspect which is a subject that has a lot of practice involving physical activities such as running, jumping, throwing, and hitting. In

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online learning, there are many obstacles in the learning process such as limitations on internet access, and the ability to understand technology online. Physical sports education also has various obstacles and obstacles during the COVID-19 pandemic. As a result, children also rarely do physical activity so that children's physical activities such as exercising are reduced because the learning system uses a lot of gadgets [2].

Physical activity is a body movement produced by skeletal muscles that requires energy expenditure. Therefore, lack of physical activity can affect health conditions, one of which is the level of balance (Habut et al., 2015). In addition to balance, lack of physical activity also has an impact on a person's physical fitness [3].

Lack of physical activity in children will have a negative impact on health and decrease physical fitness. One aspect of physical fitness is balance, where balance consists of dynamic balance and static balance. The most severe impact of a lack of physical activity is that it causes the development of balance to be hampered, thereby increasing the risk of injury to children [4]. According to WHO 2010, the impact of lack of physical activity is included in the independent risk for various chronic diseases and is estimated to cause death globally (Sholihin & Sugiarto, 2015). Fitness or often referred to as physical fitness is the body's ability to carry out physical activities without causing excessive fatigue (Sinuraya & Barus, 2020). A person can be said to be fit if he is not easily tired during activities, which means there is a reserve of energy in his body after doing strenuous activities. Physical fitness is influenced by several factors such as age, genetics, physical activity, gender, health conditions, unhealthy lifestyles such as smoking and rest [5]. This condition makes psychomotor activity that should be maintained because of playing activities and routine sports activities at school decrease, while physical activity will increase motor physical development which will later determine children's skills in moving. Fitness is the body's ability to carry out physical activities without causing excessive fatigue. While balance is the body's ability to maintain a position in carrying out daily activities. These two components are very important in the development period of elementary school, to support other developments and avoid injury.

2. Aim of study

The purpose of this study is to review the influence of online schools due to the Covid 19 pandemic which has an impact on decreasing physical activity that affects fitness and also has an impact on balance in elementary school children.

3. Material and Method

Based on the data analysis in the previous discussion, this study uses the Shapiro-Wilk normality test. The following is a table of normality test results,

4. Result

4.1. Uji Normalitas

TABLE 1: Normality Test Table.

	N	P
Physical activity	24	0.00
Balance	24	0.00
Fitness	24	0.00

Based on the data in table 1. the results of the normality test with Shapiro Wilk showed that the data were not normally distributed with a p value = 0.00.

4.2. Uji Korelasi

TABLE 2: Correlation Test Table.

	N	P
Physical Activity on Balance	24	0.19
Physical Activity on Fitness	24	0.40

Based on table 5.2. The results of the correlation test with Spearman obtained a significance value of 0.403 which shows H1 is rejected and H0 is accepted. So it can be stated that there is no relationship between physical activity and children's fitness at SDN Jatimulyo 1 Malang.

5. Discussion

Someone who has good lung capacity has good aerobic endurance which causes not easily tired, so it can be interpreted that having good lung capacity also means having good physical fitness. Low physical activity can cause weight gain and have an effect on increasing BMI. In addition, obesity also affects muscle strength, if muscles weaken

and body mass increases, there will be balance problems in the body when standing or walking .

Physical activity is one of the factors that affect fitness. In addition, there are several factors that strongly support fitness in this study such as age, diet, rest, and smoking history which causes physical activity to be a small factor that affects fitness in this study. This is also agreed with previous research conducted by Sutri, (2014) the study also found that there was no relationship between physical activity and physical fitness in fasting adolescents. The thing that causes there is no relationship in Sutri's research is due to the food factor, because the respondents are undergoing fasting which means that respondents only use reserve energy in the respondent's body. In addition, as for the latest research which says that there is no relationship between physical activity and fitness, namely research conducted by Ferdianto & Prihanto, (2017)

As for previous research on elementary school children which explained that low physical activity such as rarely walking or expending energy because parents were more often delivered and picked up when they went to school did not have a relationship with obesity which affects balance [6]. This can be interpreted that physical activity is only a small factor that can affect balance.

Differences in research results with existing theories can occur because several things such as the data obtained do not vary and the physical activity data obtained cannot describe the respondents' daily physical activities while being students because they are only measured during the research. In addition, physical fitness is influenced by several factors. Other factors that can affect a person's level of physical fitness include nutritious food, comma, adequate rest, habits, and school environment factors, as well as gender. Elementary school children can be said to already have a good ability to control their motor development. In addition, children around the age of 8 to 10 years have experienced good sensory integration which includes 3 components in balance such as vestibular, visual and somatosensory components [6]. This can be interpreted that physical activity is only a small factor that can affect balance

6. Conclusion

In this study, it was found that there was no relationship between physical activity during online learning during a pandemic with the level of fitness and balance in elementary school children. The drawbacks of this study include the short time due to school limitations due to the pandemic and the difficulty of controlling other variables in students due to the limited offline school schedule and the small number of samples.

The advantages of this research can be seen that the themes raised are very relevant to the pandemic conditions and the problems faced by the community due to online schools.

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