

# Alternatives to Increase Body Immunity Against the Danger of the Covid 19 Virus Outbreak for Education Student Elementary School Teacher at Universitas Muslim Nusantara Al-Washliyah Medan

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## Abstract

*In this study, the researcher has the aim of providing information regarding alternatives and effective ways to avoid the covid 19 virus by exercising, this information is done by visiting several sites to collect data that is considered relevant, in this study it can be concluded that it is so important about the role of exercise in maintaining the immune system to stay healthy in daily activities. Then furthermore, this also aims to provide information for student participants in the primary school teacher education study program so that they can be more careful in their activities and understand how to exercise in a pandemic situation where the COVID-19 virus is not visible masks and adhere to health protocols*

## Keywords

Sports; health; elementary school students; virus



## I. Introduction

Physical Education, Sports and Health is one of the subjects carried out at the elementary, secondary, and even higher education levels. The purpose of Physical Education is to develop aspects of physical fitness, movement skills, critical thinking skills, social skills, reasoning, emotional stability, moral action and aspects of a healthy lifestyle (Bores et al, 2021). (Permendiknas No.22 of 2006). The National Education Standards Agency (BSNP), in Physical Education Subjects, stated that sports and health physical education taught in schools has an important role, namely providing opportunities for students to see firsthand in various learning experiences through physical activity, Sports and health that are carried out systematically provide a learning experience to foster better physical growth and psychological development, as well as form a healthy and fit lifestyle for life. Physical education, sports and health are media to encourage physical growth, psychological development, motor skills, knowledge and reasoning, appreciation of values (mental-emotional-sportivity-spiritual-social attitude). In addition, physical education is one of the compulsory subjects in schools, including elementary schools, because physical education is included in the educational curriculum. Physical education is an integral part of the total educational process (Permendiknas, 2006). While forming a healthy and fit lifestyle throughout life. Physical education, sports and health are media to encourage physical growth, psychological development, motor skills, knowledge and reasoning, appreciation of values (mental-emotional-sportivity-spiritual-social attitude).

Physical activity is an inseparable part of the life of living things, ranging from simple to very complex activities. As a living creature, humans need physical activity as an effort to maintain the existence of their lives. Every individual in his life must be doing physical activities both intentionally and unintentionally, because physical activities are carried out with diverse and diverse purposes. (Sulaiman, et al. 2020)

Specifically, it can be understood that sport is a form of planned and structured physical activity that involves repetitive body movements and is intended to improve physical fitness (Dasso, 2019). Sport is part of the basic needs in everyday life because it can increase one's body resistance. Exercise can be started from an early age to old age and can be done every day. If a person does exercise regularly, he will be able to increase his muscle mass, because this exercise can stimulate muscle cells to grow bigger and muscle cells that were originally resting will return to being active again (Sparkes, 2018). But unfortunately the Indonesian people are still not aware of the importance of healthy living. This happens because of the lack of public interest and appreciation for sports. But looking at the past few months, the Indonesian people, including in remote areas, public interest in exercising is very high because currently the State of Indonesia is being hit by the Covid-19 virus pandemic which makes all people unable to carry out their activities as normal because the government issued a warning to work at home, worship. at home, studying at home and the government also recommends maintaining your own health through exercising at home where exercising during the COVID-19 pandemic can make the body's immunity stronger to fight diseases that come (Nundy et al, 2021).

The outbreak of this virus has an impact of a nation and Globally (Ningrum et al, 2020). The presence of Covid-19 as a pandemic certainly has an economic, social and psychological impact on society (Saleh and Mujahiddin, 2020). Covid 19 pandemic caused all efforts not to be as maximal as expected (Sihombing and Nasib, 2020).

In maintaining personal health to maintain body immunity in order to stay awake during the covid-19 pandemic, there are many sports activities that can be done at home or outside the home to maintain body immunity. The phenomenon of sport being important during the COVID-19 pandemic can be seen from some data that it has increased by 75% from what was previously very low public interest of only 25% (Clogan et al, 2020). This also affects the enthusiasm of student participants in carrying out routine sports such as cycling, swimming, and taekwondo and so on, so that students are more passionate about doing sports during the pandemic than before the pandemic.

## **II. Research Methods**

Library research is a type of research that is used to collect in-depth information and data through various literatures, books, notes, magazines, other references, as well as relevant previous research results, to obtain answers and theoretical foundations regarding the problems to be studied (Snyder, 2019). Furthermore, Literature Study is a way to solve problems by tracing the sources of writings that have been made before. In other words, the term Literature Study is also very familiar with the term literature study. In a research to be carried out, of course, a researcher must have broad insight regarding the object to be studied. If not, then it is certain in a large presentation that the research will fail.



*Figure 1. Literature study research stages*

### III. Results and Discussion

#### 3.1 Dangers of Covid 19 for Health

Covid-19 is a type of virus that first spread in the city of Wuhan, China. Data from the World Health Organization (WHO) states that this virus has spread and has infected 110,384 747 worldwide and caused 2,446,008 deaths. .299 cases and 34,152 have died (She, 2020). Covid-19 is very influential on people's lives, this virus has had an impact on various economic sectors and caused financial losses. Problems due to the uncontrolled spread of the virus require us to maintain health protocols such as wearing masks, maintaining distance and continuing to wash our hands. The high number of transmission of Covid-19 cases in the community is caused by various things, but awareness is one of the most contributing factors (Barcelo, 2020). Public awareness to comply with Health protocols is still very lacking so education is needed in the form of counseling about the impact and influence of this virus, many people when leaving the house or traveling do not use masks and ignore all health protocols. In addition, education and health promotion play a major role in handling COVID-19. During the pandemic, the government has recommended all citizens to apply, namely using masks, washing hands, and maintaining distance (Plhol, 2021). With good health education and promotion, the rate of spread of COVID-19 can be suppressed. Education is one of the public health efforts to prevent the spread of COVID-19. One of the prevention and control of COVID-19 disease is the provision of vaccines. However, until now the COVID-19 vaccine is still in clinical trials and no COVID-19 vaccine has been approved for administration to patients. Vaccination in the future is expected to help achieve herd immunity. Health promotion regarding how to prevent COVID-19 is very important to the community. In addition, the provision of information about the mode of transmission and the severity of the disease can also be provided to increase public awareness. Information can be provided through social media and print media, such as posters and pamphlets (Doyle & Early, 2018)

### 3.2 The Importance of Health in Physical Activity

Physical activity is all work in daily life in low or high intensity. Regular physical activity has many health benefits. Physical activity is all kinds of activities that move the body that require energy to do work such as washing, jogging, swimming, or cycling Hezron Dwi Setiatwo Bagaa, Treesia Sujana, in (Majid, 2020). All daily activities that require energy are part of physical activity. Physical activity consists of 3 groups, namely low, medium and high intensity. This is in accordance with the opinion of Ambardini in (Majid, 2020) that physical activity is classified into low, medium and high intensity. People are expected to be aware that doing moderate-intensity physical activity,

By maintaining physical fitness by doing low, moderate or high intensity physical activity, it can improve health and prevent disease in old age. According to Yudik Prasetyo in (Majid, 2020) the benefits of maintaining fitness by doing physical activity in addition to maintaining fitness and health also prevent non-communicable diseases such as obesity, heart disease, diabetes, cancer, activity injuries and other diseases that we often encounter in old age. . If we do not do physical activity regularly, there are many risks that we will get in the future. If there is a lack of physical activity or people are less mobile or lazy to move who always rely on technology it can cause problems for health.

So from the results of research conducted by Majid it can be concluded how important health is in body activities so that this also has an influence on activities which of course have a high sense of desire that elementary school teacher education students must have in order to maintain their health and avoid the covid 19 virus. that are around us.

### 3.3 Improved Immunity Due to Exercise

There are currently no studies linking the impact of exercise on the Covid-19 coronavirus. However, Tamara Hew-Butler, Associate Professor of Exercise and Exercise Science with Professor Marian Fahlman at Wayne State University in Detroit has reviewed the effects of exercise on the immune system. This study addresses the exercise frequency of the 24,000 adults in China who died during the 1998 Hong Kong flu epidemic (Pasco & Raoure, 2019). "This study shows that people who do not exercise at all or too often (more than 5 days per week) are at greater risk of dying from the flu than people who exercise moderately," the scientists said. However, Fahlman reminded people who have symptoms of the Covid-19 corona, it is not recommended to exercise first. While people who may have been infected but have not shown symptoms, exercise may be able to help. "Because people who have not shown symptoms are still in the incubation period, which means they have to boost their immune system," said Fahlman (Thompson, 2018). Doctors recommend Indoor Exercise during the Corona Outbreak Doing exercise in the midst of being advised to stay at home during the corona (Covid-19) outbreak is a challenge in itself. In fact, outdoor sports activities while getting sunlight are also needed to maintain endurance (Mercurio et al, 2020).

Cardiologist Sony Hilal stated that exercising outdoors is still relatively safe as long as you keep your distance and avoid crowds. However, he suggested that it should be done at home only, considering that many physical exercises can still be applied (Potnuru, 2018). It's best if you can exercise at home, you can do squads, push ups, sit ups, then maybe jumping jacks, running in place, yoga and the like," according to Sony, referring to a study from the New England Journal of Medicine which noted that there is a possibility of the Covid-19 corona virus. -19 survives in the aerosol. The aerosol can last 10-30 minutes in the air and when dropped due to gravity it can stick to objects. Besides, exercising indoors can avoid unwanted situations, including exposure to the corona virus from people you meet outside the home. "If you have one, you can use the equipment at

home, a treadmill or a stationary bike if you have one. Meanwhile, all doctors have agreed not to recommend going out of the house let alone gathering, safe exercise to do during a pandemic. Since the World Health Organization (WHO) has advised us to do physical distancing, a lot has changed from the way we live everyday. Not only do the teaching and learning process, work, and worship at home, athletes and people who like outdoor sports are also very disappointed. They are forced to limit sports in the center fitness, or in other sports arenas) this does not mean that you will stop exercising during this COVID-19 pandemic (Nyenhuis et al, 2020).

But according to (Grasdalsmoen et al, 2019) do exercise with the right intensity. large studies have shown that moderate to moderate exercise performed about three times a week reduced the risk of death during the Hong Kong flu epidemic in 1998. While people who did not exercise at all or exercised too much (more than five days of exercise per week), were at greatest risk of death compared to people who exercised moderately. So, make sure you keep exercising regularly with moderate intensity to stay healthy during this COVID-19 pandemic. The following types of exercise are considered safe to do at home during the COVID-19 pandemic, namely:<sup>[1]</sup><sub>[SEP]</sub>(1) Cardio, a type of cardio exercise is an effective exercise to burn fat and make the body sweat. Fortunately, this exercise can be done at home, thereby reducing your risk of contracting COVID-19. If you have a treadmill, stationary bike or other cardio equipment at home, then you can take advantage of it. However, don't worry, jumping rope or skipping can also be an alternative.(2) Aerobic Gymnastics, If you don't have a cardio exercise device, you can do aerobics which has similar benefits. This one sport is also an interesting choice to do while at home. You can do zumba exercises, for example, by following video tutorials or even with friends at home via video conference. Aerobic exercise instructors still provide movements that make the body sweat so that the body becomes more fit.

Aerobic exercise is also able to relieve symptoms of depression and anxiety disorders faced during this pandemic. (3) Yoga, This sport may seem easy and simple. However, if done seriously, this exercise is also quite effective at burning fat and making the body sweat. Another bonus, some yoga moves can make you more calm and relaxed. So that the anxiety that often arises during this pandemic can be reduced. Some of the other benefits of yoga are maintaining the body's metabolism, improving breathing, strengthening energy and vitality. You can do it at home by following the video tutorials that are widely available on the internet. (4) Dancing, This fun activity can also be counted as sports, you can turn on your favorite song, or while watching videos of your favorite artist. Dancing is also classified as a sport because it increases endurance and body strength. You can also sweat while dancing, because dancing makes your body more active and keeps moving. (5) Push-ups. This exercise can also be done at home and luckily you don't need any tools. Push-ups are a great exercise if you want to strengthen your upper body, such as your chest. If routine is done every day, it can increase the strength of the chest muscles and the body becomes more fit. Do regular exercise and adopt a healthy diet and get enough sleep so that your immune system is strong enough to fight viruses and other diseases. Exercise with sufficient intensity is highly recommended. Because, this can reduce the risk of being infected with the corona virus.

Physical activity can be one way to prevent the transmission of the COVID-19 virus. The reason, according to research results, people who exercise regularly are less likely to get sick compared to people who rarely exercise. This is because when you exercise, the performance of white blood cells will be stimulated. These white blood cells function as antibodies to fight various types of germs that enter the body. Exercise is believed to help remove bacteria from the lungs that allow the body to develop cold

symptoms and other illnesses. When exercising, body temperature also increases. This can prevent bacteria from growing in the body, and by increasing body temperature it can also help the body fight infection. On the other hand,

### 3.4 Anticipating the Covid-19 Virus with Exercise and Clean Living

Previous research conducted by Sunardi & Kriswanto (2020) has revealed that the clean and healthy behavior of the students of the Department of Sports Education, State University of Yogyakarta during the Covid-19 pandemic in the very high category, there were 33 students (7.76%), in the high category there were 79 students. (18.59%), in the moderate category there were 126 students (29.65%), in the low category there were 89 students (20.94), and the very low category had 98 students (23.06%). The highest frequency is sufficient with 126 students (29.65%). In summary, it can be seen in Table 2.

**Table 2** Healthy lifestyle

No	Score Range	Criteria	f	Percentage
1	90% - 100%	Very high	33	7.76
2	80% - 89%	Tall	79	18.59
3	70% - 79%	Enough	126	29.65
4	60% - 69%	Very low	98	20.94
5	<59	Very low	98	23.06
Amount			425	100.00

In table 2 it can be seen how concerned the students are in maintaining cleanliness for the sake of their health, both personally and in the surrounding environment. Therefore, in addition to living a healthy life by maintaining cleanliness, it is also one of the priorities for every community, especially students wherever they are.

### 3.5 Types of sports inside and outside the home during the COVID-19 pandemic

According to (Dunton & Wang, 2020) one alternative for everyone and students in increasing body immunity is by exercising both outside the home and inside the house following the types of movements that can increase body immunity at home and outside the home and how to anticipate it.





*Figure 1. Types of exercise that can be done to increase the body's immune*

From the picture shown above, it can be concluded that every student and the community can follow the way to exercise both indoors and outdoors so that everything is well maintained, starting from the aspect of health, comfort and cleanliness, then it is very likely that no virus will approach, then continue to use masks when exercising outdoors.

#### IV. Conclusion

From searches conducted by researchers from some literature reading through journals and other online media, it can be concluded that anticipation rather than keeping infected with the covid 19 virus is one of them by exercising regularly by doing physical activities to produce blood cells. New white to be strong against viruses that can quickly attack anyone's body who has a weak immune system. Furthermore, it is also important to do sports that must be done by every elementary school teacher education student in maintaining body immunity in routine activities both outdoors and indoors. Therefore, researcher's hope that what has been done through this research can contribute to readers in adding important insights and information in the academic environment. The author would also like to thank all the elements that have supported this research, the researcher is also aware of the imperfections in conducting this research so that improvements are needed in the future in conducting research.

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