



Sports Activities During The Covid-19: Literature Review

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Abstract

This review article was conducted to provide an overview of sports activities during the Covid-19 pandemic. The method used in this study is the method of literature study or literature review. Literature study is a series of activities related to library data collection methods, reading and recording, and managing research material. This technique is carried out with the aim of expressing various theories that are relevant to the problem being studied as reference material in the discussion of research results. In a search carried out through Boolean Operators using the keyword "Sport and Covid-19" on the website produced 273 findings, then narrowed by 2020, free full text found 206 findings, then narrowed back to journal articles, human species, English language, found there are 61 findings. After that the data obtained is excluded according to the needs of researchers so that they get 5 data articles. Research results show that many large-scale sports activities must be stopped, but exercise also has a positive impact on increasing endurance or immunity so that the body can strengthen itself from viruses or bacteria.

How to Cite

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INTRODUCTION

At the present time, the Covid-19 virus has spread throughout the world. This virus was identified in Wuhan, China, in early January 2020 after cell culture and particle isolation (Lee & Hsueh, 2020); Zhu et al., 2020), but the etiology is unknown (Nicola et al., 2020) Many victims in various parts of the world have been positive and died due to contracting this Covid-19. Indonesia is one country that has been infected with the Covid-19 virus outbreak. On 2 March 2020, Indonesia reported 2 confirmed Covid-19 cases (Tosepu et al., 2020). Based on the latest data from the Ministry of Health of the Republic of Indonesia on July 13, 2020, as reported by Emerging Infection Media, 75,699 positive patients were infected with Covid-19, 3,606 people died, 35,638 people recovered, and 36,425 people were treated. The increase in the number of cases took place quite quickly and there has been a spread between countries. In response, WHO has designated Covid-19 as a pandemic (Cucinotta & Vanelli, 2020).

SARS-CoV-2 belongs to the coronavirus group and belongs to the beta (β) - coronavirus group. Coronavirus Disease 2019 (COVID-19) is a zoonotic disease of the third coronavirus after SARS and MERS. SARS and MERS are also included in the beta (β) -coronavirus cluster. SARS-CoV-2 is a new beta (β) -coronavirus cluster virus belonging to the botulinum subgenus of the Coronaviridae family (Chen et al., 2020).

SARS-CoV-2 is the seventh new type of coronavirus known to humans. The first sequencing of this viral genome was identified by 5 of the sequences of the virus genome sequence being released. Genome sequences of the new coronavirus (SARS-CoV-2) are known to be almost similar to SARS-CoV and MERS-CoV (Huang et al., 2020). The evolution of the SARS-CoV-2 group was found in bats so it is thought that the natural or primary host of SARS-CoV-2 might also be a bat. This new type of Coronavirus can transmit from bats then host intermediaries then humans through evolutionary mutations (Lu et al., 2020).

The spread of Covid-19 made the world restless, including in Indonesia. Covid-19 is a new type of virus so that many parties do not know and do not understand how to deal with the virus. In general, Covid-19 has an incubation period of 1–14 days, and it shows a variety of respiratory symptoms such as fever, cough, dyspnea and pneumonia, which can range from mild to severe (Choi & Bum, 2020). As the

Corona or Covid-19 virus spread to hundreds of countries, the Government of the Republic of Indonesia issued a health protocol. The protocol will be implemented throughout Indonesia by the government guided centrally by the Ministry of Health of the Republic of Indonesia (Telaumbanua, 2020).

The resumption of community and individual sports will be governed by public health policies and the direction of the Federal, State / Territory Government. Mass meetings such as the presence of a number of participants and especially many people attending sporting events will tend to increase the risk of Covid-19 transmission (Carmody et al., 2020). It should be noted that different countries / territories may allow the resumption of several sporting activities at different times, depending on local Covid-19 transmission, resources and other variables that influence local policy. Even within the State / Territory there may be geographic variability. All community sports organizations must ensure that the activities carried out in training and competition are consistent with applicable guidelines from the Local Public Health Authority. The return of sports activities may not be linear. Relaxation / improvement restrictions may be needed in response to fluctuations in the number of Covid-19 cases (Hughes et al., 2020a).

This is a difficult situation for all of us, the Covid-19 virus has changed our lives as citizens (Schinke et al., 2020). The Covid-19 pandemic has affected people in many ways with a lot of mental health decline (Hughes et al., 2020a). Sport can significantly contribute to the re-establishment of normality in society, in the Covid-19 environment. The overall need to reduce transmission of the disease has a major impact on exercise (Yeo, 2020) until March 24, 2020, the International Olympic Committee, the International Paralympic Committee and the Japanese Government officially announced the rescheduling of the Tokyo 2020 Olympics and Paralympics to safeguard the health of athletes, everyone involved in the Olympics and the international Olympic community and the international community (Hughes et al., 2020a). These are just a few examples; golf, tennis, athletics, basketball, rugby, biking, boxing, snooker and ice skating all face cancellations and delays in efforts to curb the spread of the disease (Nicola et al., 2020).

All major sports leagues and tournaments have been suspended or canceled due to Covid-19 since the beginning of March 2020. Initially, several sporting events will be held without

spectators to reduce transmission through close contact between fans. In the case of the National Basketball Association, the season is suspended as soon as a player has tested positive for Covid-19 (Toresdahl & Asif, 2020). Since March 8, 2020, the Italian Serie A has been terminated until at least April 3, 2020, but in the meantime, several clubs have asked to continue training activities not to lose physical fitness. There is strong opposition to this from the Serie A team doctors: recently, unanimously, they have sent a letter to the Serie A League strongly recommending not to continue football activities before Covid-19 emergency clearly has improved (Corsini et al., 2020). On March 13, 2020, the English Premier League, the Football Association (FA), the English Football League, the Barclays FA Women's Super League and the FA Women's Championship were collectively agreed to postpone professional matches in the UK until Friday, April 3 at the earliest. This delay has been extended to 30 April 2020. On Monday 16 March 2020, the English soccer authority also suspended all grassroots (community recreation) and community football. On March 27, 2020, this decision developed, and not the soccer league and grassroots soccer were confirmed as «null and void» (Parnell et al., 2020).

The country of Indonesia is one of the various countries in the world that has been affected by Covid-19. The impact experienced especially in the field of sports in the country of Indonesia, namely for organizing PON in Papua in 2020, failed and stopped the 1st league competition in Indonesia. This resulted in losses both from the athletes, coaches and the audience. The aim of the cancellation of various sporting events is to break the chain of the spread of the Covid-19 virus (Susanto, 2020).

In order to prevent the wider spread of Covid-19, the government asked the public to undergo physical distancing or keep a safe distance. As reported by Koran Tempo on March 26, 2020, moderate intensity physical exercise can increase body immunity. Health is an important part of human life. Maintaining health can be done by exercising, because it has been proven to be healthy for the body. Exercise is one of the important aspects in forming a healthy and fit body (Pane, 2015). Maintaining a healthy lifestyle (healthy lifestyle) one of them with sports activities. Doing a healthy lifestyle with workout in the current conditions is highly recommended for all levels of society. This is one of the countermeasures against the Covid-19 outbreak. The existence of a healthy lifestyle is

expected to be better immunity so that immune stability can help prevent the spread of Covid-19 or break the chain of the plague (Riksandi & Hidayat, 2020).

The benefits of exercise in the Covid-19 case aim to increase body immunity. In this case, the main problem is a lack of immunity or a person's immunity, which causes the possibility of a person contracting the Covid-19 virus. One of these problems can be overcome by exercising, but not by doing sports that can involve large groups of people simply by doing independent sports. Many studies have shown that exercise can improve immune function. Some, such as, people are aware and believe that prevention of illness by increasing immunity and increasing the degree of health through sports activities are the best and cheapest efforts (Laeto et al., 2017). Regarding the effect of Ramadan fasting on body composition and physical performance in athletes, it is stated that fasting and exercise can increase the body's immunity (Rosidin et al., 2019). Exercising regularly can increase the body's immunity, so that the body is not susceptible to pathogenic organisms (Astuti, 2018). Mechanisms that support increased immunity with moderate intensity physical exercise include other relationships related to stimulation of the exchange of cells of the innate immune system and components between lymphoid tissue and blood, which will increase immunosurveys against pathogens with decreased systemic inflammation such as IL-6, complement and immunoglobulins (Tiksnadi et al., 2020). Applying a healthy lifestyle and increasing immunity in various ways, of course, will deny the entry of viruses and bacteria that can cause diseases including the Covid-19 virus (Zendrato, 2020).

METHOD

The research method used is a literature study or literature review. Literature study is a research design that is used to collect data or sources concerned with a particular topic. The purpose of the literature study is to look for theories or research results (strategies, procedures and instruments) that will be used as a reference in conducting research. The purpose of this study is to provide information regarding the impact of Covid-19 on exercise and the benefits of sport in preventing Covid-19 exposure.

The process of collecting data for the task of studying scientific literature can be done with a database search tool that is used for the stage of

searching for sources of literature. The data collection process uses the PRISMA (Preferre Reporting Items for Systematic Reviews and Meta Analysis) method.

This research was conducted by making a summary and analysis of journals related to the research questions and objectives. In the journal search procedure to be the material in this study that has criteria that are in accordance with the PICOT procedure **Figure 1**.

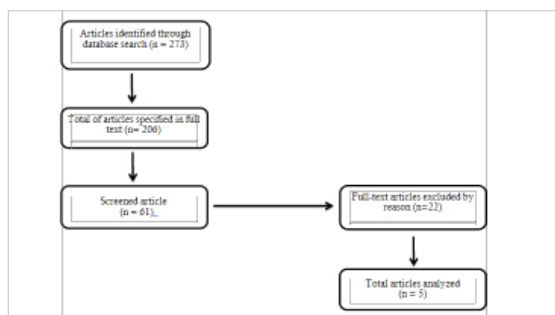


Figure 1. PICOT procedure

RESULTS AND DISCUSSION

The literature data search strategy used was obtained through a database of international journal providers. Database of international journal providers can be accessed through several websites including, springerlink, pubmed, sciencedirect. Researchers open a database of international journal providers, namely on the website, pubmed.ncbi.nlm.nih.gov. Questions used to conduct or take journal reviews as data material to be processed are adjusted to PICOT and journal search terms through Boolean Operators. Researchers write keywords that correspond to Boolean Operators namely "Sport and Covid-19".

In the database search conducted on keywords in accordance with Boolean Operators namely with the keyword "Sport and Covid-19" on the website produced 273 findings, then narrowed by 2020, free fulltext found 206 findings, then narrowed back to journal articles, species human, english language, found 61 findings. After that the data obtained is excluded according to the needs of researchers so that they get 5 data articles.

The questions used to review the journal have been adjusted to the PICOT method, where each question has a P = problem / population, in this study the researcher used Sports as a problem. I / E = implementation / intervention / exposure, researchers examine what happens to sports during the Covid-19 pandemic. C = comparative control / intervention, the researcher did

not use comparative intervention or control in his research. T = time, the researchers used the time of the COVID-19 global pandemic as time in the research review of the journal. Researchers took all the research designs used to examine what sporting activities were like during the COVID-19 pandemic.

In the discussion, obtained 5 articles which are the source of research data. In these 5 studies mentioned several sports activities during the Covid-19 pandemic. On research (Schwendinger & Pocecco, 2020; Martinez-Ferran et al., 2020) have similarities. Both of these studies show the role of physical activity in increasing the body's metabolism. Schwendinger & Pocecco (2020) stated in the current situation initiated by the covid-19 pandemic, where the level of physical activity in general has dropped dramatically far below what is usually very important to maintain and improve physical fitness to prevent exacerbations from the risk of hypokinetic disease and all causes of death. Doing light exercise and maintaining a safe distance now is a safe and effective strategy to achieve goals in healthy individuals, provided there are no medical contraindications. This may have important implications for public health during and also after the current mandemic. Thus the immune condition in the body will be maintained and it is possible to avoid the Covid-19 virus.

On research Martinez-Ferran et al., (2020) It was found that adequate control of metabolic disorders is important to reduce the risk of Covid-19. We must try to avoid the bad consequences of physical inactivity and energy balance by maintaining physical activity and exercise levels in a safe home environment. Of course it is also important for people without metabolic disorders to avoid the adverse effects resulting from physical inactivity and positive energy balance, which can encourage the development of metabolic syndrome and its co-morbidities. Martinez-Ferran et al., (2020) also explained that the Covid-19 virus varied, from minor illnesses such as flu that healed itself to pneumonia, respiratory failure, and death. Hypertension, diabetes, and CVD have been identified as potential risk factors for more severe patients. In addition, the Covid-19 virus can also increase heart damage in patients with CVD.

In the third research journal findings, conducted by Primorac et al., (2020) it was found that soccer players regained physical activity during four separate phases. The first phase includes training in small groups, while the second phase consists of training the entire team. Then in the third phase the players will start with the league

competition. While in the fourth phase, the club will join the international competition. Ideally before starting an international competition, the club should provide all registered players to obtain certificates issued by an accredited laboratory, that the players are negative Covid-19.

On research Hughes et al., (2020), Covid-19 has a devastating effect on the global community which leads to significant restrictions on all sectors of society including sports. Sport has an important role to restore normality. The organization of athletes and sports will be faced with the decision to start training activities in the current situation. The top priority for sports must be to ensure that any activities that are undertaken do not endanger public health.

In research conducted Mooney et al., (2020) found the role of doctors involved in high-performance sports being asked to diagnose and treat possible outbreaks due to Covid-19. All symptomatic individuals must be tested by Covid-19, asymptomatic individual testing can be considered. At present PCR is the only way to identify asymptomatic or pre-symptomatic carriers responsible for approximately 44% -55% of Covid-19 virus transmission. Setting up the PCR testing process for high-performance sports needs to consider many factors beyond the purchase of equipment needed for testing. Factors including biological safety, minimizing the source of errors in selected workflows, quality control and regulatory issues have been reviewed.

CONCLUSION

The problem currently faced by the community is how to maintain immunity to avoid the Covid-19 virus. One way is by doing light exercise independently, which can increase the body's immunity so that the body becomes stronger. Doing light exercise and maintaining a safe distance is currently the safest, precise and effective strategy for achieving goals in healthy individuals. This may have important public health implications during and also after the current pandemic period. Thus, the immune condition of the body will be maintained and it is possible not to catch the Covid-19 virus.

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