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Physical activity and exercise during the COVID-19 pandemic – solutions and recommendations

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Abstract

Background: Most of people are aware of the physical and mental health benefits of physical activity and exercise. As the whole world copes with the new COVID-19 pandemic, business closures, social distancing, and changes in every day schedules are disrupting just about every aspect of ordinary life and exercise routines are no exception.

Purpose: The purpose of the present paper was to review and analyze the existing data about physical activity and exercise during the COVID-19 pandemic and to present the recommended solutions to stay safe and active despite the recent daily restrictions because of the pandemic.

Methods: Potentially related articles from different web sources were narratively reviewed and retrieved. The search period was from January 2020 to October 2020 and the keywords included the terms “Physical Activity”, “Exercise”, and “COVID-19”.

Results: The main results of this search find that physical activity and exercise are suggested during the COVID-19 pandemic due to their multiple benefits on physical and mental health. Home-based training, going for a walk, meditate, practice a physical distance, using face masks, wash hands, and follow the hygiene rules are highly recommended. More experimental studies still needed.

Keywords: Corona-virus, health, depression, social distancing

1. Introduction

Coronavirus disease (COVID-19) is an infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which was first detected in December 2019 in the city of Wuhan, China [7].

As many of our daily routines remain restricted during the coronavirus pandemic, it can be difficult to find the motivation to do sports and being active.

Add to that, many people are coping with fear, anxiety, stress, sadness, boredom, and isolation all of that can have a negative effect on physical and mental health.

Exercise is one of the most powerful tools we have for staying physically and mentally healthy. It can help ease stress, depression, and anxiety, and aid in the management of internal pain during COVID-19 pandemic.

2. Purpose of the search

The purpose of the present search was to review the existing data about physical activity and exercise during the COVID-19 pandemic and to provide the appropriate ways to stay active and safe during the pandemic.

3. Methods

To obtain the desired data for this search, the electronic data sources were searched. The search period was from January 2020 to October 2020 and the keywords included the terms “Physical Activity”, “Exercise”, and “COVID-19”.

After reviewing the related data, some useful outcomes were extracted and checked. Search results are reported / described narratively.

4. Search Results

After duplicated data removed, a total of a small number of relevant outcomes were founded and retrieved, all of them were directly related to the recent topic.

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Table 1 depicts the related sources and its outcomes of possible ways to stay active during the COVID-19 pandemic.

Table 1: The related sources and its outcomes of possible ways to stay active during the COVID-19 pandemic (n=10)

Source	Author	Recommendations and Solutions provided	Website
PubMed	Dwyer <i>et al.</i> [3]	The social distancing is respected, Physical Activity is suggested during the COVID-19 pandemic due to its multiple benefits on physical and mental health. Personalized training according to age, clinical conditions, and level of fitness is paramount; therefore, specific recommendations to address home-based training during this time are highly needed	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7323175/
PubMed	Morrey <i>et al.</i> [6]	A virtual training challenge or jog together while maintaining physical distance could be a suitable way to stay active during the Pandemic	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7302086/
World Health Organization (WHO)	WHO Team [11]	Always practice physical distancing while doing sports. Hand wash and use alcohol-based hand rub are highly recommended	https://www.who.int/news-room/q-a-detail/coronavirus-disease-covid-19-staying-active
PubMed	Ammar <i>et al.</i> [11]	Physical Activity and Exercising are important key to reduce the negative lifestyle behaviours that have manifested during the COVID-19 pandemic	https://pubmed.ncbi.nlm.nih.gov/32481594/

Table 2: The related sources and its outcomes of possible ways to stay active during the COVID-19 pandemic (n=10)

Source	Author	Recommendations and Solutions provided	Website
PubMed	Woods <i>et al.</i> [10]	Physical fitness improves immune responses to vaccination, lowers chronic low-grade inflammation, and improves various immune markers in several disease states including cancer, acquired human immunodeficiency syndrome, cardio-vascular diseases, diabetes, cognitive impairments, and obesity. Moderate intensity exercise clearly up-grades the power of immune system. Examples of home exercises not requiring large spaces or equipment while easily practiced at the times of the COVID-19 include walking, stair climbing, lifting and carrying groceries, chair squats, pushups, sit-ups, rope jumping, yoga, Pilates, and Tai Chi.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7261095/
U.S. Department of Health and Human Services	ODPHP [9]	Going for a walk, run, or bike ride in the neighborhood can be a good way to get active, as long as people can safely maintain distance between themselves and other active neighbors. Consideration of the number of other people who might be at the same place of doing sports with enough space — at least 6 feet between them are highly recommended	https://health.gov/news/202004/staying-active-while-social-distancing-questions-and-answers?
Australian Government Department of Health	Australian Government Department of Health [2]	Regular exercise like walk, jog, ride a bike or kick a ball at the oval should be good for both physical and mental health during during COVID-19 lockdown. Important rules is to keep 1.5 meters apart, avoid physical contact, and wash the hands	https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/ongoing-support-during-coronavirus-covid-19/exercising-and-staying-active-during-coronavirus-covid-19-restrictions

Table 3: The related sources and its outcomes of possible ways to stay active during the COVID-19 pandemic (n=10)

Source	Author	Recommendations and Solutions provided	Website
Wiley Online Library	Shahidi <i>et al.</i> [8]	Online communication become essential way to stay active during the COVID pandemic	https://onlinelibrary.wiley.com/doi/10.1111/apa.15420
Human Kinetics Journals	Hudson & Sprow [4]	While the social-distancing measures may limit the opportunity for many to participate in structured exercise programs, they have also increased potential opportunities for leisure-time physical activity such as family walks, hiking, canoeing, gardening, yard maintenance, and other outdoor activities	https://journals.humankinetics.com/view/journals/jpah/17/7/article-p685.xml
Minnesota Department of Health	Minnesota Department of Health [5]	Practice social distancing by staying at least six feet from others as much as possible while walking or biking. Look for new routes that are less crowded. Bring along a face mask in case social distancing is not possible	https://www.health.state.mn.us/communities/physicalactivity/covid19.html

As it shows on Tab.1, the included data about Physical Activity and Exercise during the COVID-19 pandemic were directly focused on the importance of being active despite of the pandemic to avoid both health and mental problems. Add to that the main recommendations to stay active although the

wide daily restrictions because of the pandemic were included.

The search results show that regular exercise helps to reduce stress and anxiety which could happen because of the recent restrictions. Going for a walk or ride a bike and other outdoor

activities could be possible and safe if it has done under specific circumstances like practicing the social distance, wash the hands, and wearing masks if keeping social distance not possible.

Online communication and using virtual training to do sports become an essential and safe way to stay active during the COVID-19 pandemic.

The most recommended type of exercise during the pandemic was: Walking, hiking, biking, yoga, and tai chi.

These findings are relevant to the Physical Activity and Exercise during the COVID-19 Pandemic.

5. Discussion

As outlined in the search results and a growing base of evidence, doing exercise and being active during the COVID-19 pandemic is an essential key to reduce stress and anxiety (WHO., 2020) and it helps to improve various immune markers (woods *et al.*, 2020) add to that it may have potential benefits on the quality of life during the pandemic (ODPHP., 2020, Hudson&Sprow., 2020, Minnesota Department of Health., 2020).

As previously described, doing sports and staying active plays an important role in reducing the negative effects of the Corona pandemic, so it is necessary to provide information and instructions periodically to educate people about the correct healthy ways to practice sports under the necessary health and preventive measures to limit the spread of the infection and protect ourselves and the others.

6. Conclusion

Physical activity is associated with better immune function. Regular physical activity can help reduce the feelings of stress and anxiety which many of people may be feeling in the era of the COVID-19 confinement.

It is important to recognize the potential exercise-related safe solutions if the disruption in exercise routines becomes a burden on mental health because of the pandemic.

It is important for everyone to continue to practice proper social distancing and to employ aggressive personal hygiene and sanitation protocols in public gyms and fitness centres.

Future research is needed to investigate the impact of the COVID-19 pandemic on our life in general and on physical (in-) activity in specific with more detail.

7. Conflict Of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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