



Review Article

Role of physical activity during Covid-19 pandemic

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ABSTRACT

Covid-19 pandemic has led to major changes in day -to-day life. Ever since the start of pandemic, there has been a change in working conditions, reduction in physical activity and much increase in anxiety and stress due to disease itself. To deal with the physical and mental health needs of this changing times, it becomes important to maintain healthy life-style and a minimum level of physical activity. The physical activity has been shown to boost the immune system and body's capacity to fight infections and keep oneself physically and mentally strong. It is helpful for the healthy cardiovascular function which is very important during current pandemic. Though routine exercise and outdoor activity may be restricted due to social distancing norms, still it is important to have modified form of physical activity like stretching, walking, doing household chores and yoga in current scenario. Early start of exercise from school physical education can go a long way to create healthy adults.

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1. Introduction

Coronavirus disease continues to be a public health concern all over the globe. Since the outbreak of Covid-19 pandemic, there has been a drastic change in our day-to day lifestyle. Many countries imposed a lockdown to prevent the spread of disease and advised people to stay at home. The restricted physical activity, reduced social contact and stress related to the disease itself has created a need for increase in daily exercise. WHO has highlighted the importance of physical activity and sensitization to the special mental health needs of people during corona pandemic.^{1,2}

Maintaining good physical activity is a key to address the sedentary behavior arising from the change pandemic has imposed and also to boost the immune system and improve the psychological well-being. As the old saying goes "A sound body carries a sound mind". There is no doubt that exercise and physical activity plays a vital role to boost our immunity and for disease prevention. Though the type and

amount of exercise remains undefined but any amount of physical activity has been shown to be beneficial even in other chronic illnesses.

With the strict quarantine policy and "Stay home-Stay safe" slogan, many of places for outdoor activity like gyms, swimming pools, clubs etc. getting closed, there is need to design your own ways to have regular physical activity. Physical activity has been shown to ease the anxiety and stress related to disease and loneliness and helps uplift one's mood and immunity to fight infections. This becomes particularly important for those who need it the most i.e. elderly, those with co-morbidity like hypertension, diabetes, cardiac problems and obesity. There is definite correlation between body's immune mechanism and physical activity. Exercise mitigates the effect of ageing on immune system and improves the power of immunosurveillance.³

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2. Guidelines on Physical Activity during Covid-19 Pandemic

There have been guidelines issued by various international societies regarding the exercise recommended during the changing times of Covid-19.

WHO initially released a list of minimum amount of physical activity, the focus being on maintain well-being and fitness. This included 150 minutes of moderate or 75 minutes of vigorous physical activity including muscle strengthening exercises twice a week. According to WHO recommendations, even taking short breaks like stretching your muscles and short walks especially while working in sitting for long hours can help improve the blood circulation and can ease out the muscles. Aim is to walk/stretch every 30 minutes while there is prolonged sitting. WHO's Be Active Campaign focusses on staying physically active and having fun at the same time.⁴

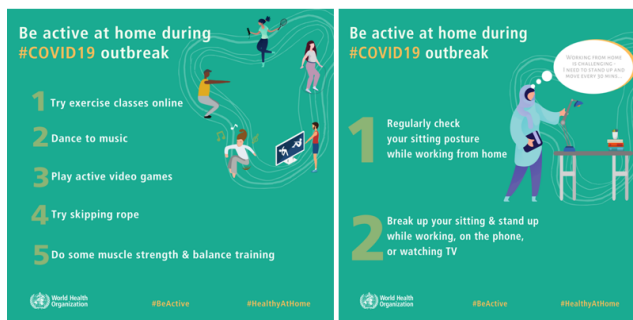


Fig. 1: WHO: Be active at home during Covid-19

Short activities like dancing, playing with children, daily work like gardening, cleaning can help stay active at home.

In addition to physical activity it is equally important to have mental relaxation to cut down the stress related to sedentary life and disease related anxiety. During the periods of mental stress and fragility imposed by Covid-19, the importance of physical activity increases further. Thus it is important to create awareness for physical activity that will promote physical & mental health of the population.⁴ This can be achieved by meditation, yoga and deep breathing exercises. Additionally having healthy diet and plenty of fluids helps to maintain your stress levels low.⁵

CDC recommends that you need to be physically active while maintaining social distancing because it helps you feel better, function better and sleep better. Physical activity reduces anxiety and keeps blood pressure under control. Adults need 150 minutes of moderate exercise a week like brisk walking. During household chores yourself and having family play time are some of the ideas to be physically active while being at home.⁶

Some modifications in regular exercise are expected during Corona time. It is important to differentiate 'exercise' from physical activity. While exercise includes a set of

structured, planned physical activity with an aim to improve physical fitness, physical activity included actions to cut down sedentary lifestyle and improve the well-being like walking, climbing stairs, household work.⁷ Chen et al. suggested some reliable and easily implementable exercises during the unsafe environment of Covid-19.⁸ Examples of inhouse activities include walking in the house, carrying your groceries, sit-ups, push-ups, climbing the stairs, chair squats and yoga. Similarly, Ricci et al., proposed some recommendations for home based physical activity to boost immune system and stay active.⁹

Overall all of these recommendations advise to stay active at home, take short breaks from sedentary life-style. The type of physical activity can be modified according to current situation and one's availing circumstances. The physical activity has been shown to improve the cardio-respiratory function which is vital during prevailing Covid-19 pandemic.¹⁰

Schools are in a unique position to promote the 60 minutes target of physical activity amongst the students. Sensitizing children and adolescents about healthy life-style and exercise can go a long way to create healthy adults and prevent many of chronic illnesses.¹¹ Active students are considered to be better learners.



Fig. 2: Highlights the five components of comprehensive school physical education programme

CDC stresses upon the need for inculcating the habit of regular physical activity right from school days through comprehensive school physical education programme.¹² (Figure 2)

3. Conclusion

It is important to maintain physical activity during the ongoing pandemic to counter the effects of sedentary

lifestyle and anxiety imposed by the disease itself. Being physically active helps to improve immune system and body's ability to fight infections. Till the time there are restrictions of social distancing, the type of physical activity can be designed according to one's own circumstances and even home based activity is beneficial.

4. Source of Funding

None.

5. Conflict of Interest

The authors declare that there is no conflict of interest.

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