

PHYSICAL ACTIVITY AND COVID-19

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ABSTRACT

The main aim of this study is to explain about the benefits of physical activity and exercise during the period of COVID-19. The corona virus disease 2019 (COVID-19) outbreak was declared a public health emergency by the World Health Organization (WHO) on 30 January 2020. The on-going Corona virus disease (COVID-19) outbreak in China has become the world's leading health headline and is causing major panic and public concerns [5]. The novel corona virus disease COVID-19 seems to be having a major effect on physical activity mass level. The COVID-19 pandemic is an unprecedented time all across the world. Worldwide, extensive social distancing policies are put into place, restricting people's daily activities and worldwide pleas from governments asking people to stay safe and stay at home. This of course means that most people will spend much of their time at home. These social distancing measures mean that people have far fewer opportunities to be physically active, especially if activities such as walking or cycling as transportation means or taking part in a leisurely sports activity i.e. jogging, walking, going to the gym are being restricted. Further, these drastic measures also make it so much easier to be sedentary at home for long periods of time. The impact of this physical inactivity may very likely be seen in many areas such as health and social care and the mental well-being of people all across the world. Although these social distancing measures are important and needed in a time such as now, our bodies and minds still need different type of physical activity and the many benefits of it.

Keyword: - COVID-19, Health, Physical Activity, Mental Health, Physical Health.

1. INTRODUCTION

Many countries in the world are currently in some or other form of lockdown or restricted movement policy and practicing social distancing. At present, there is no vaccine for the prevention or treatment of the illness caused by the corona virus [2]. Some countries have stricter measures in place with regards to exercise and only allow people to exercise outside/away from their homes once a day or only allow people to exercise away from their homes within a specific time frame or even not allowing any exercise away from home. While containing the virus as quickly as possible is the urgent public health priority, there have been few public health guidelines for the public as to what people can or should do in terms of maintaining their daily exercise or physical activity routines. These restrictions and constraints are specific to each country and the extent of the COVID-19 outbreak in that specific country. In the media it is publicized that these various measures of lockdown may have a positive effect on people's activity levels, with reports of more people being seen outside running, walking, cycling etc. We should be cautious of thinking that this implies that people are now adapting a more active and healthy lifestyle. Physical activity is accrued over a period of 24 hours in many different ways. Organized or structured sport/exercise is merely a small part of physical activity. Most people accumulate their "active minutes" by doing various other activities such as housework, walking the dog, walking/cycling to and from work, walking between tube/train stations, etc [6]. All these activities are part of people's daily lives and contribute to their physical activity minutes. During periods of lockdown, many of these activities are restricted or not even taking place and it is extremely difficult to build in these levels of activity when people's daily movements are restricted. Physical activity is a key, to manage mental health well-being.

2. INTRODUCTION OF COVID-19

COVID-19 is a disease caused by a new strain of corona virus. 'CO' stands for corona, 'VI' for virus, and 'D' for disease. Formerly, this disease was referred to as '2019 novel corona virus. Corona virus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome corona virus 2. The virus is an enveloped RNA corona virus which is mainly transmitted from person-to-person respiratory spread, people who are in close contact with each other or respiratory droplets produced when an infected person coughs or sneezes and to a lesser extent from contact with contaminated surfaces or objects[3]. It was first identified in December 2019 in Wuhan, China, and has since spread world level, resulting in ongoing pandemic. As of 17 May 2020, more than 4.63 million cases have been reported across 188 countries and territories, resulting in more than 311,000 deaths. More than 1.69 million people have recovered as per WHO data [5].

3. MEANING OF PHYSICAL ACTIVITY

Physical Activity is defined as any bodily movement produced by skeletal muscles that require energy expenditure. There are two components to physical activity that needs to consider:

Aerobic fitness: this usually includes moderate to vigorous activity that makes you feel a bit warm, causes your breathing to increase and your heart rate to increase [1].

Strength and balance: This is often the forgotten component of physical activity, but it is an essential part and has many benefits.

Physical activity may include:

- *Active recreation
- * Sports participation
- * Cycling
- * Walking
- * Play
- *Dance
- * Gardening
- * House cleaning
- *Carrying heavy shopping

During the COVID-19 pandemic it is even more important for all people to be physically active. Even if it is only a short break from sitting at your desk and doing some walking or stretching. Doing something simple as this will: ease muscle strain, relief mental tension, improve blood circulation improve muscle activity, It also helps to give some routine to a day in these unprecedented times.

4. PHYSICAL ACTIVITY AND EXERCISE RECOMMENDED BY W.H.O. DURING COVID-19

World Health Organization has recommendations on the amount of physical activity people of all ages should do to benefit their health and wellbeing.

Up to 1 year

Babies aged 0-1 years need plenty of opportunities for free movement and floor play, as long as they can do it in a safe environment. An environment that encourages your child to explore and develop skills like reaching, rolling, and sitting up, crawling, pulling up and walking is great. All infants should be physically active several times a day. For those not yet mobile, this includes at least 30 minutes in prone position (tummy time), as floor-based play, spread throughout the day while awake. [5]

2 year to 5 years

It's recommended that children ages 2 to 5 be physically active throughout the day. Regular activity can help improve bone health and start patterns to keep them at a healthy weight as they grow. Activities should be fun and encourage your toddler to explore and try new things. All young children should spend at least 180 minutes a day in a variety of types of physical activities at any intensity. 3-4 year old children should spend at least 60 minutes of this time in moderate- to vigorous-intensity physical activity [5]

5 year to 17 year

All children and adolescents should do at least 60 minutes a day of moderate to vigorous-intensity physical activity. This should include activities that strengthen muscle and bone, at least 3 days per week. Doing more than 60 minutes of physical activity daily will provide additional health benefits [5]. Most of the daily physical activity

should be aerobic. Vigorous-intensity activities should be incorporated, including those that strengthen muscle and bone at least 3 times per week.

Above 17 years

Physical trainer suggests focusing on functional movements that utilize your entire body. Functional exercises are those that we, as human beings, perform regularly in our daily lives. These are movements you perform all day (sometimes without even thinking about it) like squatting, lunging, pushing, pulling, rotating, and hinging. Exercises that translate well include squats, reverse and side lunges, push-ups, bench presses, Russian twists, and dead lifts. Experts says that they will all help make daily activities easier by improving strength, coordination, and balance. All adults should do at least 150 minutes of moderate-intensity physical activity throughout the week, or at least 75 minutes of vigorous-intensity physical activity throughout the week. For additional health benefits, adults should increase their moderate-intensity physical activity to 300 minutes per week, or equivalent. For developing and maintaining musculoskeletal health, muscle-strengthening activities involving major muscle groups should be done on 2 or more days a week. In addition, older adults with poor mobility should do physical activity to enhance balance and prevent falls on 3 or more days per week [5]

5. STAY PHYSICALLY ACTIVE DESPITE COVID-19 CLOSURES

There are many ways you can be active, even when the gym is closed and you are practicing social distancing. According to recommendations from the American Heart Association, adults should aim for at least 150 minutes of moderate-intensity physical activity, or at least 75 minutes of vigorous-intensity physical activity, per week. If you have a chronic condition or are an older adult, you should check with your doctor before starting a new home exercise program. Your doctor may be able to recommend exercises that are safe for you and will let you know what types of exercise you should avoid. In lock down period there should be engage in less intensive exercises [4].

Here are a few suggestions to help you get moving:

- **Exercise with family:** Exercise is an excellent opportunity for family fun. Walks, bike rides, dance parties, living-room yoga sessions, or backyard soccer games are just a few examples of how you and your household members can exercise together.
- **Get outdoors:** Walking, cycling, jogging, and hiking can help you get some much-needed fresh air while staying safely away from others. Don't have time for a full-length outdoor exercise session? Consider breaking your workout up into several 10-minute sessions. You'll be surprised at how quickly a few brisk walks around the block can add up to a full workout.
- **Follow along with online exercise videos:** Whether you enjoy yoga, cardio kickboxing, Pilates, strength training, bare, dance, or another type of workout, chances are you can find a service that offers online videos. Additionally, many exercise studios and other community organizations are now providing on-demand virtual fitness content.
- **Take a virtual class:** If you have the financial resources, consider supporting your local fitness studio or personal trainer by signing up for online fitness classes or training sessions. Some personal trainers are even offering private virtual sessions customized to your needs, schedule, and preferences. Plus, having a class or training session on your calendar allows you to interact with other people in a fun way, which may be just the motivation you need to keep up with your fitness regime.
- **Challenge yourself:** Set an exercise goal — such as doing yoga five days per week or beating your best 5K time — and make a plan to work toward achieving it.
- **Tackle calorie-burning chores:** Chores such as mowing the lawn, working in the garden, washing the car, or cleaning out the garage provide excellent opportunities to build muscles and burn calories. In addition to the sense of accomplishment you will feel after your workout, completing a household task will yield even more feel-good benefits.

6. PROMOTION OF PHYSICAL ACTIVITY AND EXERCISE DURING COVID-19

- Motivate people to break their periods of inactivity.
- Motivate people to engage in aerobic activity on a daily basis.
- Motivate people to engage in strength and balance exercises two to three times a week.
- Focus on main functional muscle groups.
- Think about and find ways for people to incorporate these exercises every week during COVID-19 and beyond.
- By doing this there is the potential to change physical activity in the long term.
- Physical Trainer or experts need to focus on effective messaging during COVID-19. This may include positive messages about the benefits of physical activity aligned with the concerns that people have during lockdown and pandemic these may be:
- This type of physical activity during COVID-19 may improve mental health.
- This type of physical activity during COVID-19 may help in improving of sleeping patterns.
- This type of physical activity during COVID-19 helps you stay healthy and fit.
- These type of physical activity during COVID-19 helps reduce the demand on body systems.

7. SAFETY MEASURES WHILE PHYSICAL ACTIVITY AND EXERCISE DURING COVID-19

- If you are facing fever, cough and problem in breathing then do not go for exercise.
- Follow the rule of social distancing during exercise in outdoor.
- Always practice good hand hygiene before the activity and after the activity.
- Physical activity starts slowly and with low intensity activities such as walking or low impact physical exercises for shorter periods of time.
- Always choose the correct activity to reduce the risk of injury.
- The load of the exercise should match your fitness levels and health status.

8. Importance of physical activity during the COVID-19

Regular physical activity and exercise is essential for everyone under normal circumstances. However, here are a few reasons why physical activity and exercise is especially crucial during the COVID-19 pandemic:

- Physical activity and exercise boosts the immune system: Research shows that regular, moderate-intensity exercise has immune-boosting benefits that may help your body fight off infections, including COVID-19.
- Physical activity and exercise may prevent weight gain: Exercise can help you burn extra calories caused by dietary changes and offset the effects of sedentary activities.
- Physical activity and exercise reduces stress and anxiety: Exercise is a proven mood-booster and can help adults reduce stress levels and build emotional resilience.
- Physical activity and exercise improves sleep: There is evidence that suggests regular exercise helps you fall asleep faster and improves sleep quality — and getting a good night's sleep has also been found to boost your immune system.
- Physical activity can be useful treatment plan for symptoms of both depression and anxiety.
- Every day is new days to engage in physical activity that can be bring long and short term benefits for body.
- For children and adolescents, moderate-to-vigorous physical activity and exercise during the day are associated with elevations in self-esteem, improved concentration, reductions in depressive symptoms, and improvements in sleep.
- For older adults and among individuals managing chronic medical conditions, regular walks are recommended. The benefits of strength training and weightlifting (low weight with high numbers of repetitions) may be even greater in older adults to maintain quality of life and functioning.
- Moderate-to-vigorous physical activity (such as speed-walking or jogging) has been shown to help reduce the use of alcohol and other substances. Additionally, participation in regular physical activity is shown to

boost the immune system. Reduction in substance use is also associated with improvement in the body's ability to fight off infection.

- Physical activity may be especially beneficial for older adults and people with chronic health conditions, such as diabetes, arthritis, or heart disease. Regular exercise can help to improve balance, flexibility, strength, mobility, and cardiovascular health. Plus, it can boost energy and overall well-being [4].

Although many things feel beyond our control right now, we do have the ability to be creative and to build physical activity into each of our days. We may even look back on this difficult time as the turning point when we learned new ways to build our emotional resilience and our physical health.

9. CONCLUSION

During the COVID-19 pandemic being physically active will be a challenge for all of us, but it is critical that we find and plan ways to be active and reduce our sedentary time. Although our movement around our neighborhood, town, city, country and the world might be restricted, it remains critical that we all move more and sit less. Although it may take some effort to create and adjust to new fitness routines, regular physical activity can help you optimize your health and well-being during the corona virus pandemic. These recommendations of physical activity are relevant to all healthy persons unless specific medical conditions indicate to the contrary. Physical activity has also been associated with psychological benefits in all by improving their control over symptoms of anxiety and depression. Similarly, participation in physical activity can assist in the social development of people by providing opportunities for self-expression, building self-confidence, social interaction and integration. It has also been suggested that physically active people more readily adopt other healthy behaviors' (e.g. avoidance of tobacco, alcohol and drug use) and demonstrate higher performance at life. Everyone can benefit from being physically fit. Staying fit can help improve all type of performance, build confidence, prevent obesity, and decrease the risk of serious illnesses (such as heart disease and diabetes). And regular physical activity can help people learn to meet the physical and emotional challenges they face every day.

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BIOGRAPHIES



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