

IMPACT OF COVID-19 LOCKDOWN ON THE PHYSICAL ACTIVITY OF THE SELECTED ADULTS.

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Abstract – *The physical activity is reduced during this lockdown period. Hence, we aimed to evaluate the impact of the COVID-19 lockdown on physical activity level in a selected sample.*

Key Words: coronavirus, lockdown, physical activity.

1. INTRODUCTION

Coronavirus disease (COVID-19) is caused by a RNA virus named the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), established to human populations in November or December 2019. The first cases of the disease occurred in Wuhan, the capital city of Chinese Hubei Province, and then the COVID-19 quickly spread outside China reaching practically every country in the world. On January 30, 2020, the World Health Organization (WHO) considered the COVID-19 (corona virus) to be a global health emergency. (Zangiacomini, et al., 2020).

The first case of COVID-19 in Kerala (first case in all of India) was confirmed in Trissur on 30 January 2020. On 16 March, there have been 1,094,294 confirmed cases, test positivity rate is at 8.85 per cent with 1,063,444 (97.09%) recoveries and 4,422 deaths in the state of Kerala. On 23rd March, Chief minister Pinarayi Vijayan announced a state wide lock-down till 31st March to prevent and reduce the further spread of the coronavirus. This was held before the central government declared a national wide lock-down. (Jakobsson et al., 2020)

Adopting unhealthy lifestyles could have negative effects, both in dealing with the corona virus today and in the life of sedentary people once the pandemic has passed. Some of the negative effects of this sedentary situation can cause and which can be observed over time are cardiovascular diseases (CVD), such as obesity, diabetes, hypertension and metabolic syndrome, because reduced physical activity is linked to a reduction in insulin sensitivity. Physical activity is constituted as a fundamental components to combat these unhealthy lifestyles during this similar situations, since it contributes to maintaining an normal optimal state of health, both physical and mental. (Polero et al., 2021).

Encouraging that people should remain within their homes with discontinued daily life activities may unintentionally increase the sedentary behaviour, this led to decreased Physical Activity, and inflict negative health consequences. Decreased Physical activity will decrease mechanical load, energy expenditure and metabolic rate which may result in a decline in physical fitness and an energy surplus (Jakobsson, et al., 2020)

Sudden lockdown implies change in whole lifestyle of the human population. COVID-19 affects individual's lives by increased reduction in their physical activities, which might increase the chance of infection and metabolic diseases (Srivastav et al., 2021).

Hence this study was planned with the objectives to evaluate the physical activity pattern before and during COVID-19 pandemic and to assess the impact on their health status.

2. METHODOLOGY

About 110 adults including 46 males and 64 females in the age group of 20-45 years residing in Kerala were included for the study. A well-structured questionnaire was developed and shared through social media to reach maximum number of samples. The questionnaire included socio demographic data of the selected populations such as age (20-45), gender (male/female), educational level, marital status, employment, socio-economic status, anthropometric information such as height, weight duration of exercise, sleeping, leisure time activities, cooking and also about their health issues before and during COVID- 19. The responses were consolidated based on the inclusion and exclusion criteria given below.

Inclusion Criteria - Adults in the age group of 20-45 years of ages

Exclusion Criteria -Adults in the age group of 20-45 years with disease conditions and under medication.

3. RESULTS AND DISCUSSION

Majority of the responded were in the age group of 20-25 years (36 per cent) and about 9 per cent were in the age group of 41-45.

Socio- economic class of the selected adults depicted that greatest per cent (45) belonged to middle income group and 16 per cent and 14 per cent belonged to upper income and lower income respectively.

Majority (52 per cent) was found to have weight between 51 -70 kg followed by 18 per cent (71-90 kg) before COVID-19 lockdown period. But during lock down period, about 62 per cent were having weight in the range of 51 -70 kg and 27 per cent were found to have the weight in the range of 71-90 kg.

Physical activity pattern of the selected adults revealed that greatest per cent (67 per cent) were physically active before COVID 19 but during COVID -19 lock down, it was found that only 22 per cent were physically active and more than one half of the selected adults were nor physically active. It might be the reason of increasing the weight in the selected adults.

Before COVID-19 lockdown, 61 per cent of adults had a practice of doing exercise regularly but during COVID-19, it was found to be only 20 per cent. It was clear that, physical activity was found to decreased during COVID-19 among the respondents. Among the physically active adults, during COVID-19, 29 per cent preferred yoga, 19 per cent preferred walking and 11 per cent opted dancing.

Before COVID-19 lockdown, majority of the adults preferred outdoor activities for doing their physical activities but during COVID-19 it was lacking, it might be the reason for reducing the physical activity during COVID-19.

Before COVID-19, the time allotted for physical exercise by the respondent was found to be one hour (42 per cent), two hours (29 per cent), half an hour (24 per cent), and more than 2 hours (5 per cent). When we observe the duration of physical activity during COVID-19, it was found to be half an hour (54 per cent), one hour (24 per cent) and two hours (14 per cent). Leisure time activities of the selected adults found to be using mobile phones and pc(45 per cent), cooking (17 per cent), reading and writing(17 percent), playing games(16 per cent), watching TV videos (14 percent) before COVID-19.

4. CONCLUSIONS

Physical activity is recognized as an fundamental part of healthy living and quality of life, it helps in the prevention of chronic diseases and in the overall maintenance of physical and mental health of human being. Sudden lockdown implies change in whole lifestyle of the human population. COVID-19 affects individual's lives by increased reduction in their physical activities, which might increase the chance of

infection due to the reduced immunity. From the study it was clear that physical activity pattern of the selected adults was reduced due during lock down. It might be due to maintenance of social distancing and staying at home. These pandemic situations also make it so much easier to be sedentary at home for long periods of time. Decreased Physical activity will lower mechanical load, energy expenditure and leads to weight gain which is one of the risk factors of other metabolic disease.

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