

An Overview Regarding Physical Activity During COVID – 19 Pandemic Period

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Keywords: risk, outcome, coronavirus, lockdown, physical fitness

Abstract:

This paper summarizes the impact that COVID-19 pandemic over physical activity of various people. Nowadays, worldwide there is a concern that regards people's activity during the coronavirus pandemic, the importance of being physically healthy and the impact of physical fitness in preventing different disease [1][2][3].

Introduction. The purpose of the research is to analyze people's activity during the covid-19 pandemic period, the impact of self-isolation period in people's physical fitness level and also the impact of workout in the recovery of patience with covid-19 [1][2][3].

In December 2019, the new severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), emerged in China and rapidly spread throughout the world [10]. In order to stop the curve of exponential growth, many countries imposed a lockdown. In most of the countries exceptions to the curfew were going to work, necessary shopping, visits to doctors and pharmacies, assisting others. Despite efforts to allow people to stay physically active, many opportunities, such as fitness centres, athletic programs and sports clubs, have been suspended [11].

It is demonstrated that physical activity (PA) has a major impact in many areas such as health, social care and mental well-being of people worldwide. The social distancing measures mean that people have fewer opportunities to be physically active while gyms access is being restricted. Although these measures are indeed important, people's organisms still need physical activity and its benefits [4].

According to World Health Organization (WHO, 2010), the recommended amount of physical activity for adults (>17 years old) is a minimum of 150 minutes of moderate-intensity workout per week. However, during the Covid-19 pandemic period people had to adapt to a

new lifestyle [7]. Therefore, this phenomenon influenced the ability to reach the recommended amount of PA [6].

Further there will be presented a few studies that show how Covid-19 pandemic period influenced physical activity in different countries.

Piyawat K. et al., conducts a study that highlights the impact of Covid-19 physical activity on Thai population. It is shown that moderate to vigorous activity decreased from 74.6% to 54.7%. This is also accompanied by a reduction of the average cumulative time spent on physical activity from 580 to 420 minutes [8].

In Saudi population, the pandemic changed people's physical activity also. It is shown that a significant decrease (57,1%) in the time spent performing physical activity was observed [9].

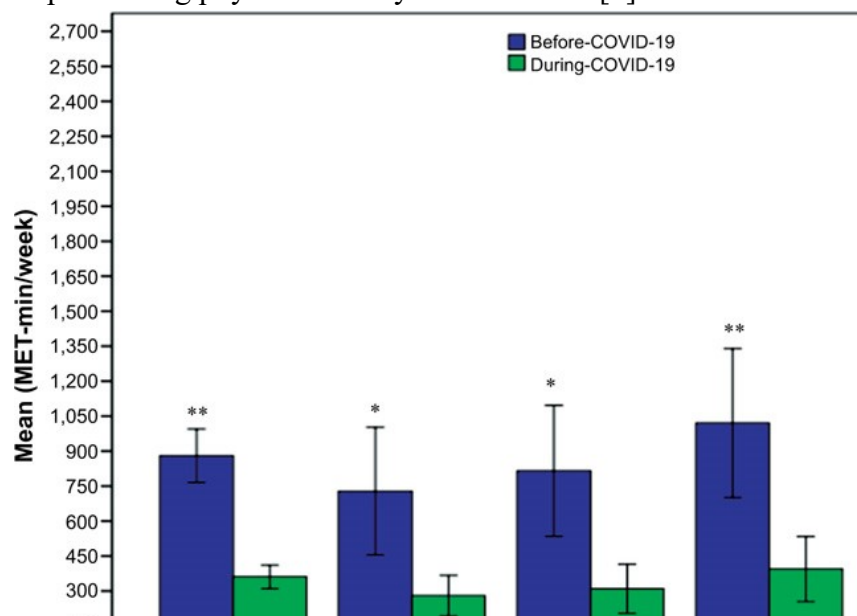


Chart no.1 Overall physical activity among Saudi people in Covid-19 pandemic period [9]

In Germany, a study also demonstrated that pandemic lockdown negatively influenced the physical activity among young adult people [11].

Chart no. 2 it is shown the impact of lockdown in physical activity of Bavarian young adults before and during the lockdown. (a) Participants were asked if the amount of physical activity had changed after the lockdown. 44.5% (867) reported to be less active, and 32.8% (639) reported to be more active than before the lockdown. (b) Participants were further asked to semi-quantify the average hours per week of physical activity they had done in a typical week before, and after, the lockdown. This revealed a marked decrease, participants stating to be doing 2–5 h per week since implementation of the lockdown measures. (c) Median daily step count was significantly reduced. (d) A significant difference was also found when comparing the selected days.

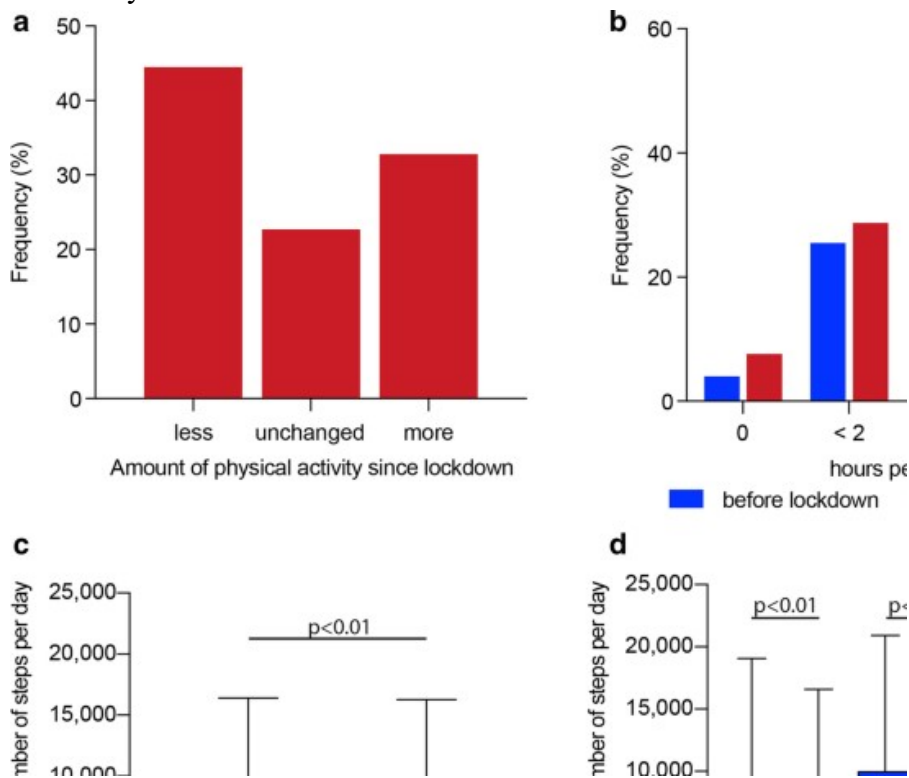


Chart no.2 Physical activity among Bavarian young adults before and during the lockdown [11]

On the other hand, Garmin data reveals how worldwide people workout during the lockdown period. Garmin represents a sports watch that prevails data from different countys and people. It is shown that people habits changed dramatically. It's published data from March 2020, showing that people did not walk as much as they would do in a non-lickdown period, a range of 8700 steps per day in the beginning of March to 7700 by the end of month (chart no. 3). However, Garmin data shows that indoor workout increased a lot such as cardio workout or HIIT classes. The current data was compared to the data recived from a year ago (2019) as it is showed in chart no. 4 [5].

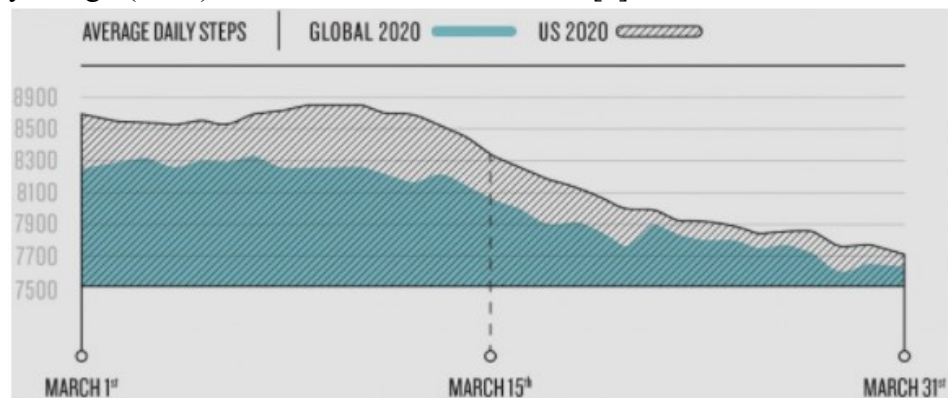


Chart no.3. Walking activitiy during March 2020[5]

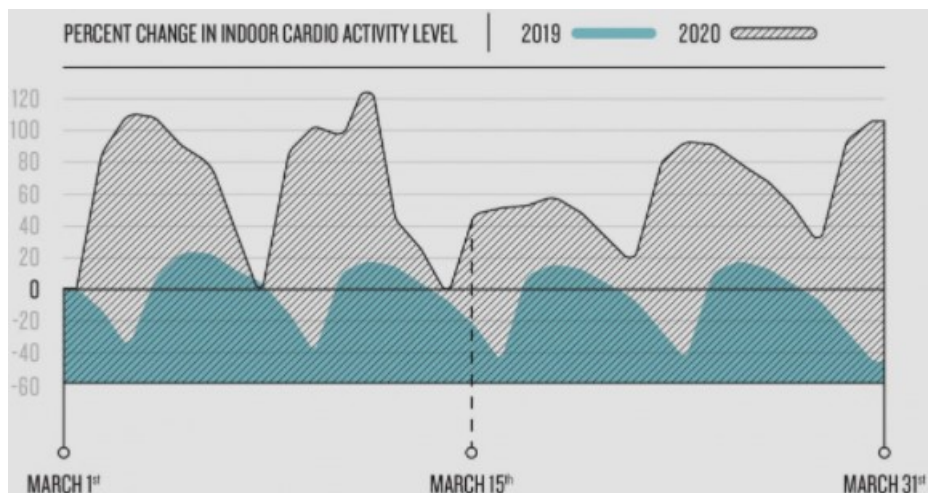


Chart no. 4 Indoor cardio workout 2019/2020 [5]

In Romania, the first case of infection is reported on 26.02.2020, after which the repatriation process of Romanian migrants from Italy and Spain triggers an increase in the number of infected, which determines the authorities to issue a Presidential Decree that established a state of emergency at national level. Gradually, various outdoor activities were severely restrict, including sports and leisure activities [12].

Being physically active during the coronavirus (COVID-19) outbreak is very important for peoples physical and mental health. It is shown that physical activity can prevent chronic disease and the enhance of overall health. Its benefits include reduction of low-density lipoproteins while increasing high density lipoprotein; improvement of glucose metabolism in patients with type II diabetes; improved strength, self esteem and body image; and reduction in the occurrence of back injuries, enhance immune system and may have a beneficial effect on the interleukin-2/natural killer cell system [13].

Conclusion

In summary, we were able to show how Covid-19 pandemic period influenced various people physical activity behaviour before and during lockdowns.

Even if social distancing is required, PA is suggested during the COVID-19 pandemic due to its multiple benefits on physical and mental health. It is shown that personalized training, indoor activities are paramount; therefore, training during this period are highly needed.

Moderate intensity exercise of a non-structured nature seems to facilitate most of the disease prevention goals and health promoting benefits.

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