Original Research Paper Volume - 11 Issue - 01 January - 2021 PRINT ISSN No. 2249 - 555X DOI : 10.36106/ij Physical Education Physical Education EFFECT OF COVID – 19 LOCKDOWN ON BMI AND PHYSICAL STATUS OF DEGREE COLLEGE TEACHERS OF AGRA	
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(ABSTRACT) Governminimpacte	nents of various countries applied Lockdown for preventing Covid-19 transmission. This long term lockdown d on life of peoples including students and teachers. Generally most teachers work outdoor and indoor in normal

impacted on life of peoples including students and teachers. Generally most teachers work outdoor and indoor in normal days, but during covid -19 pandemic Lockdown they performed very limited physical activity so it impacted on their mental and physical health. For the purpose of this study 729 Teacher of Dr. B.R. Ambedkar University and its affiliated colleges were randomly selected. For the "fitness status survey" questionnaire was developed by Dr. Jaswant singh was used that one having Physical Status, Physical Activity and diet related 30 questions. The online survey was conducted through google form published from 11-05-2020 at 10:00 Am to 12-05-2020 upto 23:59. Results of the study revealed the significant results similar to the WHO and AYUSH guidelines.

KEYWORDS:

Introduction

The World Health Organization (WHO) has declared the coronavirus disease 2019 (COVID-19) a pandemic. A global coordinated effort is needed to stop the further spread of the virus. A pandemic is defined as "occurring over a wide geographic area and affecting an exceptionally high proportion of the population." The last pandemic reported in the world was the H1N1 flu pandemic in 2009.

Coronaviruses are a family of viruses that cause illness such as respiratory diseases or gastrointestinal diseases. Respiratory diseases can range from the common cold to more severe diseases. Coronaviruses got their name from the way that they look under a microscope. The virus consists of a core of genetic material surrounded by an envelope with protein spikes. This gives it the appearance of a crown. The word Corona means "crown" in Latin.

Although the virus can infect people of all ages, evidence suggests that older people (those of 60 years old) have an increased risk of developing a severe form of the disease. This may be due to: 1-Ageing is associated with a decline in immune function. 2-Higher risk of comorbidities (Diabetes, Heart Disease, Lung Conditions, Cancer). 3-Residence/Location - Many older people live in care homes or nursing facilities, where the disease can spread more rapidly.

The WHO suggests the following basic preventative measures to protect against the new coronavirus. Stay up to date with the latest information on the COVID-19 outbreak through WHO updates or your local and national public health authority. Perform hand hygiene frequently with an alcohol-based hand rub if your hands are not visibly dirty or with soap and water if hands are dirty. Avoid touching your eyes, nose and mouth. Practice respiratory hygiene by coughing or sneezing into a bent elbow or tissue and then immediately disposing of the tissue. Wear a medical mask if you have respiratory symptoms and performing hand hygiene after disposing of the mask. Maintain social distancing (approximately 2 meters) from individuals with respiratory symptoms. If you have a fever, cough and difficulty breathing seek medical care.

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 (if not all) 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, or taking part in a leisurely activity (e.g. jogging, walking the dog, going to the gym) are being restricted. Furthermore, 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 globe.

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 as simple as this will: ease muscle strain, relief mental tension, improve blood circulation, improve muscle activity, create some routine to your day in these unprecedented times.

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

- **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.
- **Exercise may prevent weight gain:** Exercise can help you burn extra calories caused by dietary changes and offset the effects of sedentary activities.
- Exercise reduces stress and anxiety: Exercise is a proven moodbooster and can help adults reduce stress levels and build emotional resilience.
- **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.

There are many benefits of physical activity. These include: Strengthening and maintaining your immune system strength - being less susceptible to infections, Reduces high blood pressure, Weight management, Reduces the risk of heart disease, Reduces the risk of diabetes, Reduces the risk of stroke, Reduces the risk of certain cancers, Improves bone and muscle strength, Improves balance, Improves flexibility, Improves fitness, Improves mental health, Reduces the risk of depression, Reduces the risk of cognitive decline, Delays the onset of dementia, Improves overall feeling of well-being,

In light of the current situation worldwide, certain benefits of physical activity may be specifically pertinent to the COVID-19 Pandemic. Physical activity enhances immune function and reduces inflammation therefore it could reduce the severity of infections. Physical activity improves common chronic conditions that increase the risk for severe COVID-19 (i.e. Cardiovascular Disease, Diabetes). Physical activity is a great stress management tool by reducing symptoms of anxiety and depression. Physical activity helps bring cortisol levels in balance. Stress and distress (such as during a pandemic) creates an imbalance in cortisol levels and this negatively influences immune function and inflammation.

As already iterated, we are living in unprecedented times and we are learning as we go about the effects and impact of this pandemic. With

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regards to physical activity and periods of lockdown or restricted and regulated movement, there is some evidence emerging but it is still in the early stages of this pandemic and we won't fully understand the impact of "lock down" for many months.

Early Research Findings

University College London launched a social study on the psychological and social experience of people in the UK during the Covid-19 pandemic. During the second week of the study the researchers looked into exercise and social behaviours of over 47 000 participants. This is app-based and self-reported data. Early stage findings from this study include. Conclusion 1 out of 4 people say that they have had no exercise or even gentle physical activity in the past 7 days. 85% of study participants reported that they did not engage in any moderate or strenuous exercise at all. 40% of study participants reported that they had not done any gentle exercise such as going for a walk. Even in younger participants (18 - 30 years) four out of five people report not engaging in any moderate or high intensity activity. People with diagnosed mental and physical health conditions are doing the least physical activity. Older people are engaging in more gentle activity, but the least in exercise at home or moderate to strenuous exercise overall. People living alone are engaging less in all kinds of physical activity. People from lower income levels are engaging less in all kinds of physical activity. These are early findings and these results will most likely change over time and as lockdown measures eases.

From the various data sets, it is clear that people are finding ways to exercise, but that is not a true reflection of their accrued physical activity over a 24 hour period. Many people also engage in no moderate or strenuous physical activity during lockdown measures; the implications of this will only be evident later on.

Objectives of the study:

Governments of various countries applied Lockdown for preventing Covid-19 transmission. This long term lockdown impacted on life of peoples including students and teachers. Generally most teachers work outdoor and indoor in normal days, but during covid -19 pandemic Lockdown they performed very limited physical activity so it impacted on their mental and physical health. This study will enable us to observe covid-19 lockdown effect on Physical activities of Degree College teachers of Dr. B.R. Ambedkar University, Agra.

SELECTION OF SUBJECTS

The present study was conducted on 729 Teacher, Staffs Students of Universities and Colleges. For the "fitness status survey" questionnaire was developed by Dr. Jaswant singh was used that one having Physical Status, Physical Activity and diet related 30 questions. The online survey was conducted through google form published from 11-05-2020 at 10:00 Am to 12-05-2020 upto 23:59

DESIGN OF THE SURVEY

This is a status survey, which did not require the investigator basically to manipulate any of the variables included in it. Rather the collection of data became instrumental in providing correct insight into the physical fitness status, It was not intended to study the interaction among various variables.

RESULT OF THE STUDY AND DISCUSSION OF FINDINGS

Seven hundred twenty nine (N=729) subjects were participated in *ONLINE FITNESS STATUS SURVEY* those were belong to more 100 institutes. Out of them 507 (69.5%) were male where as 222 (30.5%) were female. Question wise report was analyses and presented here.

Table-1 BMI IS LESSER THAN 19 OR GREATER THAN 25?

BMI IS LESSER THAN 19 OR GREATER THAN 25?	Yes	No
Response in %	64%	36%

 Table 1 shows that 64% teachers of Dr. B. R. Ambedkar University were normal in BMI and 36% were not normal in BMI level.

 Qus: Is your BMI lesser than 19 or greater than 25?



Table – 2 Do you get any joint / bone disease/ serious accidents that hinders and physical activity?

Do you get any joint / bone disease/ serious accidents that hinders and physical activity?	Yes	No
Response in %	13%	87%

Table 2 shows that 87% teachers of Dr. B. R. Ambedkar University were not suffering from any type of bone disease or any serious accidents that were hindering from performing any activity, where as only 13% of teachers were suffering from such type of obstacles.



Table - 3 Do you perform Physical activity / yoga at your home?

Do you perform Physical activity / yoga at your home?	Yes	No
Response in %	95%	05%

Table 3 shows that 95% teachers of Dr. B. R. Ambedkar University were performing physical activity / yoga at home during covid-19 lockdown whereas only 5% were not involved in any type of physical activity / yoga during covid-19 lockdown.



Table - 4 How long do you performs physical exercise/ yoga?

How long do you performs physical exercise/ yoga?	More than 30 minutes	Less than 30 minutes
Response in %	55%	45%

Table 4 shows that 55% teachers of Dr. B. R. Ambedkar University were performing physical activity / yoga at home more than 30 minutes during covid-19 lockdown whereas only 45% were performed exercise and yoga less than 30 minutes during covid-19 lockdown.



Table - 5 Are You Climbing more than 100 stairs in a day?

Are You Climbing more	Yes	No
than 100 stairs in a day?		
Response in %	70%	30%

Table 5 shows that 70% teachers of Dr. B. R. Ambedkar University were climbing more than 100 staires in a day during covid-19 lockdown whereas 30% Teachers were not climbing stairs during covid-19 lockdown.

Qus: Are you climbing more than 100 stairs in a day ?



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DISCUSSION OF RESULTS

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BMI: 64% teachers of Dr. B. R. Ambedkar University were normal in BMI and 36% were not normal in BMI level. Studies shows that overweight, obese, and underweight may have a major risk factor for multiple disorders in the later stage of life. Earlier studies have shown a relationship between BMI and mortality among diabetic patients (Chang et al. 2016). In many countries, the obese population is more vulnerable to most of the non-communicable diseases. Further, the COVID-19 pandemic has put this population at higher risk (Dayal 2020). Overweight and obesity among severe COVID-19 patients were reported as an independent risk factor (Jose and Manuel 2020). Increased adiposity undermines the pulmonary function contributing the viral pathogenesis as a secondary cause of infection (Dorner et al. 2010) has been reported in obese among older individuals (> 60 years of age) (Andersen et al. 2016). Obesity has been shown to increase vulnerability to infections, serving as a risk factor among COVID-19 patient's mortality rate (Misumi et al. 2019). Malik et.al. (2020) concluded in their study that BMI plays a significant role in COVID-19 infection and severity at all ages, especially elderly population. COVID-19 patients with higher BMI should be reviewed by a panel for the risk factors. Further, there should be a procedure for increased vigilance, testing priority, and therapy for patients with obesity and COVID-19 disease, whose illness has entered 7-10 days, having age > 50 years, and elevated CRP levels. The severity of COVID-19 found has a significant burden on intensive care resources in hospitals worldwide and specifically in lower-and-middle income countries due to lack of health finance and resources. Hence, the patients having higher BMI with other comorbidities should be given special attention to reduce morbidity and mortality associated with COVID-19 infection

Results also shows that 87% teachers of Dr. B. R. Ambedkar University were not suffering from any type of bone disease or any serious accidents that were hindering from performing any activity, where as only 13% of teachers were suffering from such type of obstacles. The Bone and joint diseases creates hindrance while performing physical activities which are very necessary for keeping fit.

Results also shows that 95% teachers of Dr. B. R. Ambedkar University were performing physical activity / yoga at home during covid-19 lockdown whereas only 5% were not involved in any type of physical activity / yoga during covid - 19 lockdown. Yoga is an effective and time tested immunity booster. It can help lower your stress level, improve your quality of sleep and remove toxins from the body, thereby improving your overall health conditions (TOI Jun 28, 2020).

Results also shows that 55% teachers of Dr. B. R. Ambedkar University were performing physical activity / yoga at home more than 30 minutes during covid-19 lockdown whereas only 45% were performed exercise and yoga less than 30 minutes during covid - 19 lockdown. Yoga and Exercise for Primary Prevention of COVID-19 should be more than 30 minutes or more (AYUSH 2020)

Result also shows that 70% teachers of Dr. B. R. Ambedkar University were climbing more than 100 staires in a day during covid-19 lockdown whereas 30% Teachers were not climbing stairs during covid-19 lockdown. Regular physical activity can help give our days a routine and be a way to stay in contact with family and friends. It's also good for our mental health - reducing the risk of depression, cognitive decline and delay the onset of dementia - and improve overall feelings. 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 (WHO,2020).

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