

Assessing the Impact of COVID-19 Lockdown on Physical Activity and Psychological Status in Individuals of Various Age Groups Using Google Forms

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ABSTRACT

Introduction: Covid-19 pandemic has been a sudden jolt to mankind. Lockdown following it has caused major changes in everyday life. It has affected physical activity, psychological makeup and has brought everyone to a 'new normal' lifestyle.

Hence this study was attempted to find out the impact of lock down on physical activity and psychological status during lock down.

Aim: To assess the impact of Covid-19 lockdown period on physical activity and psychological status in individuals with various age groups.

Materials and methods: Data collection was carried out using Google forms. Descriptive statistics was used to analyse the data.

Results: During lockdown, working hours were reduced for 66.66% individuals. Physical activity was increased for around 33.33% individuals whereas was increased in 43.57% individuals and remained same for rest of the individuals. Considering psychological status there was an increase of more than 10-20% in number of individuals who had increase in frequency of emotions who had developed increased level of feeling guilty, sad or irritable.

Conclusion: Lockdown had a major impact on psychological status of individuals whereas less severe impact on physical activity of individuals.

Key words: lock down, psychology, physical activity.

INTRODUCTION

The Coronavirus disease 2019 (COVID-19), caused by a novel corona virus has caused a pandemic worldwide. Due to lack of pharmacological cure or vaccine, social measures are essential to contain the spread of the virus. The common strategies used are social distancing, isolation, quarantine, lockdowns and curfews. A Cochrane systematic review concluded that quarantine, combined with other measures, such as school closures, travel restrictions and social distancing might reduce the number of COVID-19 infections and deaths¹. There is evidence which supports this².

According to a BBC report, dated 07.04.2020 over 100 countries worldwide have implemented full or partial lockdown measures as of late March, affecting a large number of population³.

Even though these public health measures like social distancing, lockdown are essential it may have an impact on psychological status of the patient. Symptoms include emotional disturbance, depression, stress, low mood, irritability, insomnia, post-traumatic stress symptoms and anxiety⁴.

Regular physical activity has shown to reduce morbidity and mortality rates, increased quality of life and independence in old age⁵. Physical fitness can also help to

reduce the risk of acute life threatening events^{6,7}.

Even relatively low volume of simple physical activity, such as walking or cycling has been shown to induce favourable effects on various metabolic markers in healthy and diseased population.

Lockdown may exert unfavourable psychological effects on the short and possibly longer term. These evidences suggest that there is an acute impact of physical activity on symptoms of psychological distress⁸ and it has potential to increase positive activated affect⁹. Besides improving positive attitude, physical activity can also promote feelings of vitality¹⁰.

Many psychological problems and important consequences in terms of mental health including stress, anxiety, depression, frustration, uncertainty during COVID-19 outbreak have emerged progressively.¹¹ Common psychological reactions related to the mass quarantine which was imposed are generalized fear and community anxiety which are associated with disease outbreaks, and increased with the rising new cases together with inadequate, anxiety-provoking information which was provided by media.¹² The psychological problems due to this pandemic may vary from a panic behaviour or collective hysteria,¹³ to feelings of hopelessness and desperation which are associated with negative outcomes including suicidal behavior.¹⁴ Importantly, other health measures may be compromised by abnormally elevated anxiety.

Aim: To assess the impact of covid-19 lockdown period on physical activity and psychological status in individuals of various age groups.

Objective

1. To assess the impact of Covid-19 lockdown on physical activity in individuals of various age groups using Google form.
2. To assess the impact of Covid-19 lockdown on psychological status in

individuals of various age groups using Google form

MATERIAL AND METHODS

Google forms for assessing the physical activity

Google forms for assessing the psychological status

Methodology: Approval from institutional ethics committee was taken. Google forms were sent by email to the individuals. Consent from the participants was obtained by filling up the first question whether they want to participate. Altogether 221 participants had participated from various countries. The data was saved in drive.

Study design: Cross sectional

Sample size-Individuals responding within lockdown period and a month after that

Study population: Individuals with the age 7 and above

Inclusion criterion:

1. Individuals with the age 7 and above
2. Individuals who can read English
3. Individuals having their email account

Exclusion Criteria:

1. Individuals not willing to participate.
2. Individuals unable to make use of technology due to any reason
3. Individuals who did not complete the forms.

Sampling technique: convenient sampling

RESULTS

Table 1

working hours		
increased	decreased	same
12.6	66.66	20.7

Table 1 illustrates the percentage of population as per change in working hours during lock down as compared to before.

Table 2

Physical activity		
increased	decreased	same
33.33	43.57	23.1

Table 2 illustrates the percentage of population as per change in physical activity during lock down. as compared to before

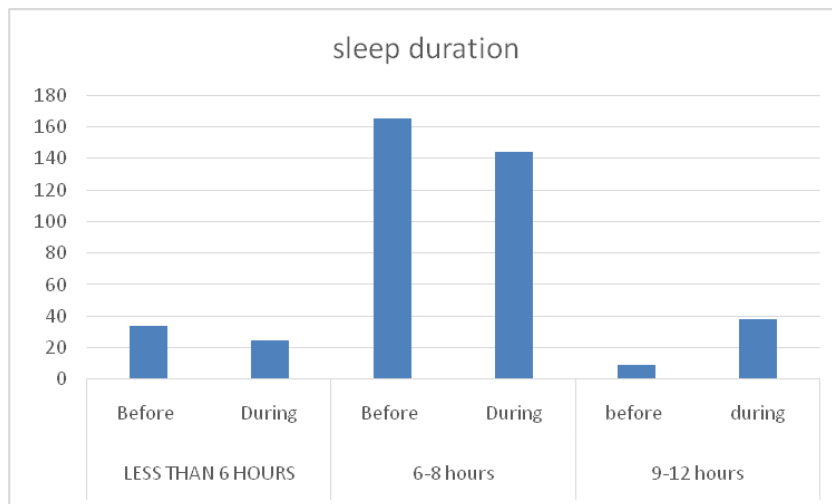
Table 3

outdoor	indoor
54.95	45.04

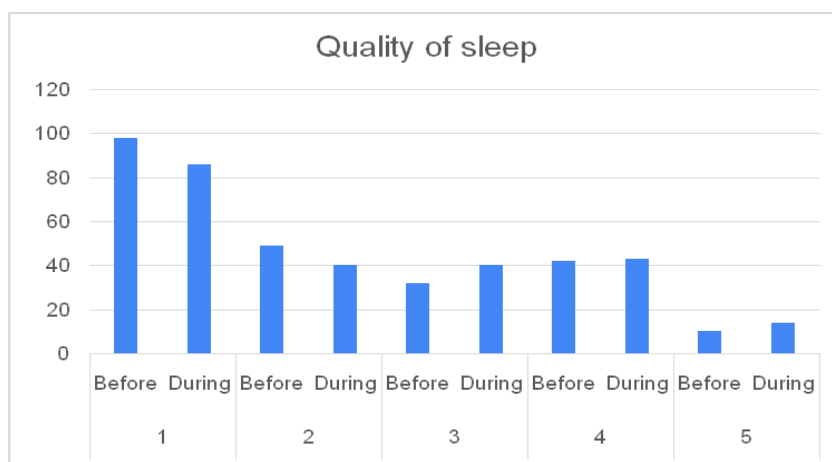
Table3 indicates percentage of population who were engage in indoor and outdoor activities.

supervised	unsupervised
25	75

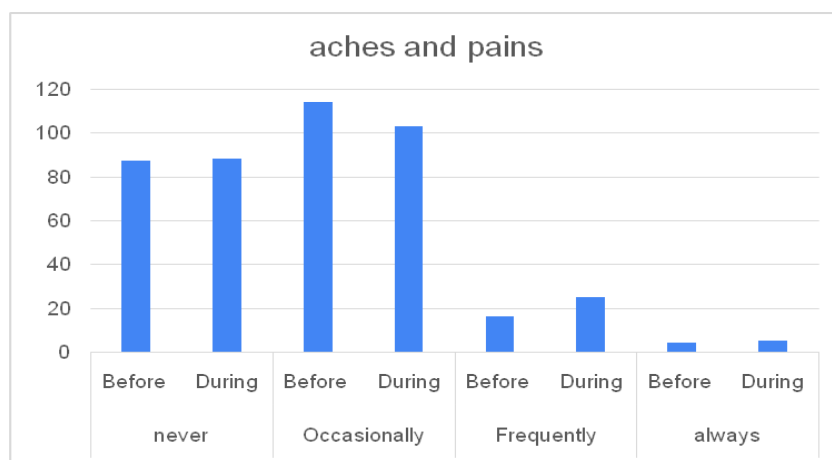
Table 4 indicates percentage of population who were undergoing supervised and unsupervised physical activity.



Graph 1 indicates duration of sleep before and during lockdown



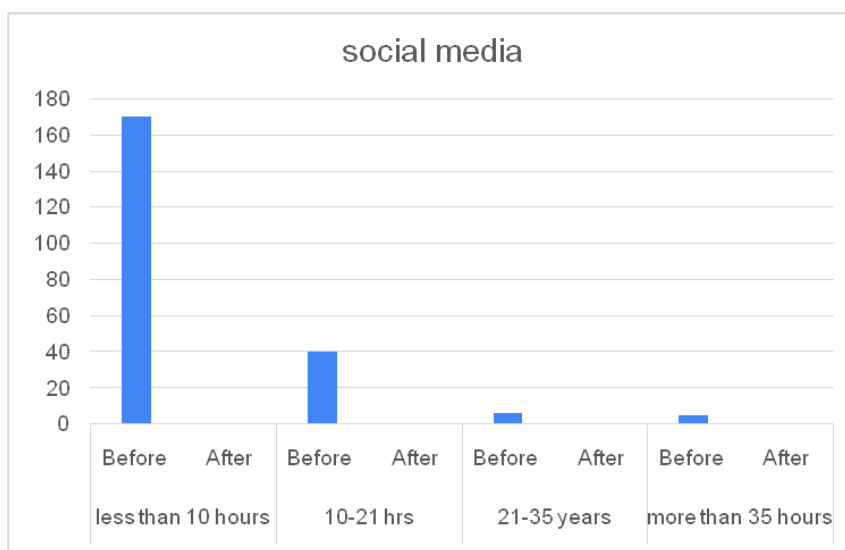
Graph 2 indicates quality of sleep before and during lockdown (1=normal,5=severely disturbed)



Graph 3 indicates frequency of pains and aches before and during lockdown



Graph 4 indicates percentage of population as per severity of restlessness (1=not at all,5=severe)



Graph 5 indicates use of social media before and during lockdown

Table 5

Job security	
Before	during
72.8	46.15

Table 5 indicates percentage of population who felt secured about their jobs before and during lockdown

Table 6

frequency of feeling sad							
never		Occasionally		frequently		always	
Before	during	Before	during	Before	during	Before	during
35.5	26.1	58.8	46.6	2.7	23.5	1.8	3.1

Table 6 indicates percentage of population as per their frequency of feeling sad before and during lockdown

Table 7

frequency of feeling guilty							
never		Occasionally		frequently		always	
Before	after	Before	after	Before	after	Before	after
60.1	57.01	33.03	26.6	4.9	14.6	1.97	1.79

Table 7 indicates percentage of population as per their frequency of feeling guilty before and during lockdown

Table 8

Feeling of irritability									
1		2		3		4		5	
Before	after	Before	after	Before	after	Before	after	Before	after
35.2	21.7	44.7	29.8	11.7	19.45	6.33	14.9	2.07	14.02

Table 8 indicates percentage of population as per their severity of irritability, before and during lockdown (1=not at all.5=severely irritable)

DISCUSSION

This study was conducted to find out impact of lockdown on physical activity and psychological status. Since it was a study about pandemic forms were sent to individuals across various countries. Total numbers of participants were 221, out of which 36 were from US, 1 each from Germany and Australia and rest were from India. Males were round 33.48percent and females were around 66.52percent

Physical activity:

33.33 percent individual reported that physical activity was increased 43.57 % reported that it has been decreased whereas 23.1 reported it to be the same.54.95 individuals were used to do physical activity outside, due to lockdown there was a restriction on outdoor activities also 25 percent of the individuals were undergoing supervised physical activity which may have also hampered the physical activity.

Due to lockdown there was dearth of domestic help and in India where people have domestic help for most of the household cleaning, cooking etc. was not available. Hence many individuals were doing these activities on their own. Being at home for entire day and closure of school and playground may have led individuals to play with their children. Few of the individuals were not able to exercise due to hectic schedule were able to engage themselves in regular exercise regime. Hence there could have been increase in physical activity of few individuals as reported.

Psychological status:

Individuals did report increase in sleep duration which may be due to flexibility of working hours, also it has been

observed that there was a significant impairment in sleep quality which may have resulted in increased sleep duration.

Job insecurity seems to be increased as few of the job opportunities were absolutely lost. The new normal has incorporated online orders. As there was complete lockdown, on field jobs were at stake. Hospitality industry had a slack as not only lockdown but a fear of spread of infection due to immediate contact with workers and preference to stay at home whenever not required has led to fall in buyers, recession in international; market and all this may have led to job insecurity.¹⁵

There was a significant increase in level and frequency of restlessness, irritability, feeling of sadness or guilt feeling. The frequency of aches and pains also found to be increased.¹⁶ This could be a psychosomatic pain or may be due to unaccustomed activity.

Initially there was lot of anxiety and fear about pandemic. Few people were finding it difficult to cope up with this new normal like online education, meetings, shopping etc. People who were used to have socialisation because of jobs, recreation or otherwise was severely compromised. Few of the individuals were staying in a small house where one's space may not possible. The same routine and same environment throughout the day for months may have caused boredom. As reported inability to focus on professional or domestic front due to flexible work schedule may have led to significant guilt feeling. Social isolation related to restrictions and lockdown measures are linked to feelings of uncertainty for the future, fear of new and unknown infective agents resulting in abnormally increased anxiety.¹⁷ Anxiety may be directly related to sensorial

deprivation and forced loneliness leading to depression and post-traumatic stress. In addition, anxiety is closely associated with fatigue and reduced performance in individuals while boredom and loneliness can have direct impact on to anger, frustration and sufferings linked to quarantine restrictions.¹⁸ In addition to it, effects associated with excessive anxiety in a pandemic period may include the perceived lower social support, separation from loved ones, loss of freedom, uncertainty and boredom.¹⁹

Lack of recreational activity, outdoor physical activity or exercise may have impacted psychological status remarkably. Even though there was increase in amount of physical activity in few of the participants it was not the exercise but exertion in most of the cases. Hence this study concludes that there was a significant impact of lockdown on psychological status and to some extent on physical activity

CONCLUSION

Lockdown has led to significant impact on outdoor physical activity and exercise. It has got more severe impact on psychological status of the individuals.

Limitations: As the data collection was through Google forms even though large number of population was contacted individuals who filled up the form were less in number.

Future scope: A prospective study on similar grounds can be conducted to find out after effect. Individuals who are more vulnerable to psychological stress could be screened.

Clinical Implication:

Use of physical activity as a measure to reduce impact on psychological status can be recommended. If required help from experts, help lines can be made available.

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- How to cite this article: Joshi S. Assessing the impact of COVID-19 lockdown on physical activity and psychological status in individuals of various age groups using Google forms. *Int J Health Sci Res.* 2020; 10(10):130-136.
