

ORIGINAL ARTICLE

Potential Physical Health Changes during the Covid-19 Confinement in Pakistan

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ABSTRACT

Background: The Coronavirus outbreak was declared a pandemic by the WHO in March 2020 and entire population was asked to self-isolate and live in home-confinement for several weeks to months. This has had collateral effects on many parameters of the isolated individuals health. A short term sedentary lifestyle is sufficient to induce insulin resistance and fat deposition which in turn increases the risk of multiple metabolic disorders.

Aim: To investigate the potential physical health changes that occurred during the CoVID-19 quarantine/isolation period in Pakistan.

Methods: A descriptive cross-sectional study was conducted during social isolation, from 27th May to 1st July, 2020. The study was initiated after approval from the institutional ethical review committee of Health Research Solutions. Stratified sampling technique was used to collect the data from the census organisation committee in Pakistan.

Results: The sample of respondents in the data analysis included : N=553 (63.5% women 36.5% men). The findings explore the health impacts of several weeks of a reduction in physical activity and daily step-count combined with altered eating habits and sleep hygiene.

Conclusion: The findings of the current study may contribute to a better understanding of the novel coronavirus effects on lifestyle especially physical activities and sedentary behaviour. It concludes that certain health aspects that have been explored in this research can be improved through methods developed to increase participation in activities during current and future pandemics.

Keywords: CoVID-19 Coronavirus, WHO

INTRODUCTION

The CoVID-19 epidemic began in Wuhan, China in December 2019. As of August 1, 2020, there had been 17,580,581 confirmed cases and 688,224 deaths in 213 nations and territories due to extensive human-to-human transmission¹. Researchers are well on their way to discovering vaccines and treatments for the novel coronavirus. Until then, social distancing is virtually the only intervention available to help individuals stay healthy, and to break the chain of transmission - giving more vulnerable populations a fighting chance of surviving this pandemic.⁽²⁾ This is true for Pakistan, where the confinement period began on 13th March, 2020.⁽³⁾ With restaurants and cafes, shops, schools and gyms closed, and citizens required staying at home, these drastic measures of self-isolation make it much easier to be sedentary at home for long periods of time.

Shutdown measures have already impacted small businesses, small and medium enterprises and daily wagers associated with various sectors of the economy, restricting people's daily activities⁴. This, of course, implies that individuals have fewer opportunities to be physically active, and that they spend more time sitting and staring at screens, which has an impact on their well-being, sleeping patterns, and overall quality of life. However, it is critical for people of all ages and abilities to remain as active as possible during this period of confinement. Simply taking a 3 to 4 minute break from sitting and engaging in light-

intensity physical exercise, such as walking or stretching, can assist muscle relaxation which enhances blood circulation and muscle activation⁵. International recommendations currently require at least 150 minutes of physical activity per week, however it has been suggested that physical activity should be raised to at least 200 minutes per week during confinement to compensate for the fall in average daily levels⁶. As the CoVID-19 pandemic expands globally it is critical to relieve the strain on an increasingly overburdened healthcare system⁷. As a result, every individual's physical well-being must be prioritised. Regular physical activity benefits both the body and the mind. It can aid with weight management, blood pressure control, and the prevention of heart disease, stroke, type 2 diabetes, depression, and certain cancers⁸.

There has been no major research examining the relationship between the duration of confinement and health risk behaviours in the 2020 CoVID19 pandemic in Pakistan.

This study, therefore aims to analyse the association between an extensive period of inactivity and HRBs in Pakistani adults⁹.

METHODOLOGY

A descriptive cross-sectional study was conducted during the period of 27th May to 1st July 2020. The study was initiated after approval from the institutional ethical review committee of Health Research Solutions. Using the method of simple stratified sampling, age, gender and co-morbidity strata were identified with subgroups made within the sample. The inclusion criteria for the respondents were

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people living in Pakistan, age 18 > to ≤ 60 years, female or male.

The pre designed proforma included 35 questions divided into the following sections: (I) Personal details 4 questions; (II) General Health 2 questions; (III) Work setting before and during the confinement 6 questions; (IV) Sedentary behaviour before and during the confinement 2 questions; (V) Recreational behaviour before and during the confinement 7 questions (VI) Nutrition and diet before and during the confinement 8 questions (VII) Sleep hygiene before and during the confinement 6 questions. After taking consent from participants via email, data was entered and analysed by using the SPSS -version 25. The answers of participants were confidential.

RESULTS

Table 1: Health risk behaviours observed during the CoVID-19 pandemic confinement suggesting a significantly greater percentage of population indulging in an inactive lifestyle.

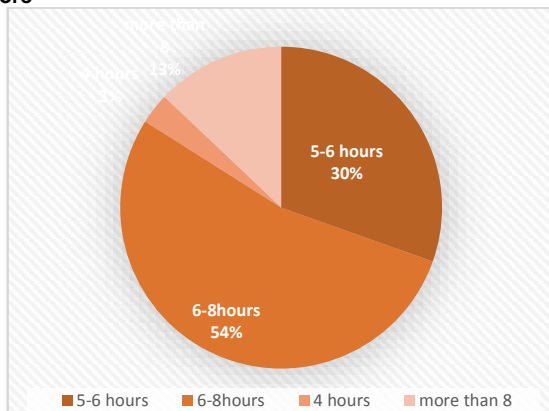
Health Risk Behaviour	Description	Outcome (% of population)
Time spent sitting/reclining on a typical day	2-4 hours per day	12.9%
	8-10 hours per day	34.5%
Meals consumed on a typical day	1 meal per day	6.5%
	3 meals per day	38.0%
Time spent taking a nap on a typical day	Less than 1 hour per day	15.9%
	More than 1 hour per day	34.9%
Work setting	Active	8.3%
	Sedentary	11.4%

Table 2: Health risk behaviours observed before the CoVID-19 pandemic confinement suggesting a greater percentage of population indulging in a comparatively active lifestyle.

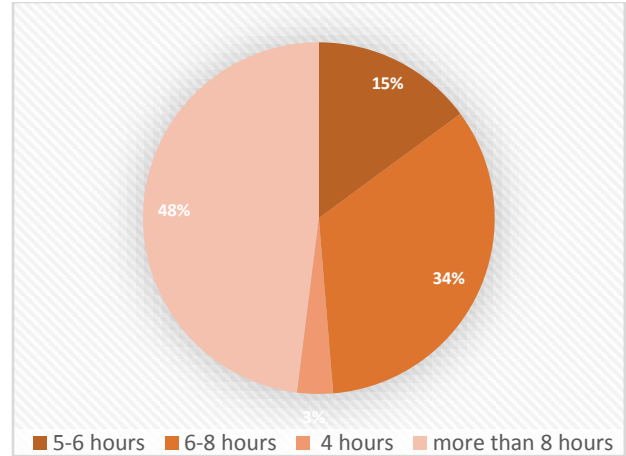
Health Risk Behaviour	Description	Outcome (% of population)
Time spent sitting/reclining on a typical day	2-4 hours per day	31.5%
	8-10 hours per day	19.4%
Meals consumed on a typical day	1 meal per day	3.1%
	3 meals per day	49.3%
Time spent taking a nap on a typical day	Less than 1 hour per day	13.5%
	More than 1 hour/ day	26.6%
Work setting	Active	32.3%
	Sedentary	4.1%

Graph 1: Graphical presentation for comparing the sleep patterns before and during the Co-VID-19 confinement period.

Before



After



DISCUSSION

The study examined health risk behaviours observed in an inactive lifestyle during the COVID-19 period. The comparison of before and after results demonstrated an increase in sedentary behaviour during the confinement period with 11.4% of the sample being increasingly inactive. The time spent relaxing and reclining on a particular day increased during the period of study. Greater amounts of people are faced with less tasks and errands to do on a daily basis.

Our study shows an increase in the frequency and duration of daytime sleep. Before the pandemic, our sample seldom slept during the day, with naps rarely exceeding an hour. However, during the confinement period, more than fifty percent of the sample partakes in a daytime sleep with a 34% increase in time duration exceeding one hour.

This outcome matched the study's hypothesis. Most individuals under went significant changes in their daily routines. All of these changes may influence how many hours' people sleep at night and how long they sleep during the day.

In a similar study, it has been reported that nap times increased in a European sample as the lockdown prolonged (10). Our study correlated with the European study as the negative impact of increasing daytime sleep leads to lethargy and decrease in physical activity.

Nutrition and eating habits before and during the confinement period varied greatly. Most people ate exactly three meals per day before the lockdown however during the confinement there was an 11.3% increase in consuming more than three meals per day.

Furthermore, before the pandemic, about 69.4% of the sample dine-in or used to take-out whereas during the confinement only 43.6% did so. In a continental food study conducted in the COVID-19 pandemic, food priorities varied before and during the period. Similar changes in the percentage of dining in at restaurants were observed during the lockdown period¹¹. People's interest in restaurant take-out decreased and increased in home cooked meals. This similar trend can be seen in our study as people ordered out less in the lockdown period yet ate more meals at home.

CONCLUSION

A development which occurred that was not hypothesised was the increase in healthy eating habits. Even though people ate more meals per day by excess snacking, these meals were mainly home cooked. For this reason, the quality of food being consumed improved however the excess quantity again leads to obesity which is an issue of concern.

Sleeping patterns were disturbed nocturnally with less of the sample size enjoying more than five hours of sleep however daytime napping increased in both frequency and duration during the confinement.

Recommendations: Recommendations for maintaining a normal number of meals per day without snacking have also been addressed in this paper and also provides recommendations for lifestyle, exercise and nutritional interventions to prevent loss of muscle mass, insulin sensitivity and aerobic capacity during long periods of home confinement.

Conflict of Interest: The authors declare no conflict of interest.

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