ORIGINAL ARTICLE

Epidemiology of sleeping disorders among doctors during COVID-19 pandemic in Pakistan

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ABSTRACT

Introduction: Novel coronavirus disease or COVID-19, an acute respiratory illness caused by a newly discovered SARS-CoV-2 virus emerged in December 2019.

Objectives: The main objective of the study is to find the epidemiology of sleeping disorders among doctors during COVID-19 pandemic in Pakistan.

Material and methods: This cross sectional study was conducted in Sir Ganga Ram Hospital Lahore during June 2021 to December 2021. A questionnaire was used to collect the data. Among the topics covered in the survey were questions regarding the quality of one's night's sleep, where one keeps infection control supplies, how one copes with stress and depression, how one learns about COVID-19 on the internet, how one views risk, and other personal information. The survey was completed over the internet.

Results: The data was collected from 200 patients. Over half (55.0 percent) were married and under the age of 35. (49.1%). The majority of respondents (57.8%) spend more than two hours a day on social media. The great majority of them came from the upper echelons of the workforce. There were 38.3%, 29.8%, and 29.1%, respectively, of those who reported a worse sleep quality following the onset of COVID-19, according to their weighted proportions.

Conclusion: It is concluded that COVID-19 is widely spreading in Pakistani doctors. Mental health disorders and poor sleep quality are more widespread in the medical field because of the heightened danger of exposure during pandemic illnesses.

Keywords: Epidemiology, COVID-19 Disorder, Patients

INTRODUCTION

COVID-19, or novel coronavirus disease, is an acute respiratory infection caused by a newly identified SARS-CoV-2 virus[1]. A worldwide pandemic is now a reality as it spread quickly across Europe (especially Italy) as well as the United States. Many countries in Asia, Africa, and Latin America say the virus have spread to their countries in the last few months. There were 32,731,945 cases of COVID-19 documented worldwide as of September 27th, 2020, with a total of 991,224 fatalities among those who got the virus[2]. As a result of WHO's March 11th declaration that this was a worldwide pandemic, countries throughout the world put their citizens and animals under lockdown to prevent the spread of the disease[3]. Despite clinical and public health experts' efforts to contain the virus' transmission, the COVID-19 pandemic and quarantine measures had a heavy toll on people's mental health. There is historical evidence that quarantine causes stress, sadness, irritability and sleep deprivation[4].

An unnamed virus killed a person in Wuhan, China, in December 2019, according to the most recent information. The epidemic that started off as a Chinese-only illness has now spread throughout the globe. According to the John Hopkins University Covid-19 dashboard, there have been 392,331 confirmed cases and 17,156 fatalities. Pestilence has spread to 196 countries and territories, with epidemics happening most widely outside of China in Italy, the US, and Spain. A total of 438,441 cases were reported by the World Health Organization, of which 19,650 people died and another 111,877 were recovered[5].

A good night's sleep is crucial for physical and mental well-being. Insufficient sleep and extended alertness may raise the risk of insomnia, nightmares, daytime instability, and fatigue, among other symptoms[6]. As many as one in four people have a sleep disorder, according to recent research [7]. They've also been related to obesity, diabetes, hypertension, cancer, musculoskeletal issues, septicemia, and the metabolic syndrome[8]. According to the same research, 50-70 million people in the United States suffer from at least one sleep disorder16, while the prevalence of sleep disorders in Australia and the Netherlands is 20-35 percent18 and 27.3 percent respectively[9].

Objectives: The main objective of the study is to find the epidemiology of sleeping disorders among doctors during the COVID-19 pandemic in Pakistan.

MATERIAL AND METHODS

This cross-sectional study was conducted in Sir Ganga Ram Hospital Lahore from June 2021 to December 2021. A questionnaire was used to collect the data. Among the topics covered in the survey were questions regarding the quality of one's night's sleep, where one keeps infection control supplies, how one copes with stress and depression, how one learns about COVID-19 on the internet, and how one views risk, and other personal information. The survey was completed over the internet. A validated measure of insomnia severity and daytime impairment, The ISI was used to assess whether respondents had experienced either in the preceding two weeks. Participants were asked how frequently they get the most recent information about COVID-19 from various sources to analyze their sources of COVID-19 information. "no" (never), "sometimes," and "often" were the options. Health-related organizations, press conferences, conventional media (such as newspapers and radio), and social media platforms were among the sources included in the list of often-used resources. SPSS 25.0 was used to do a statistical analysis of the collected data (SPSS Inc., Chicago, IL, United States). Mean and standard deviation (SD) or number and percentage were used to summarise the demographic information supplied by the respondents (%).

RESULTS

The data was collected from 200 patients. Over half (55.0 percent) were married and under the age of 35. (49.1 percent). Most respondents (57.8%) spend more than two hours a day on social media. The great majority of them came from the upper echelons of the workforce. There were 38.3%, 29.8%, and 29.1%, respectively, of those who reported a worse sleep quality following the onset of COVID-19, according to their weighted proportions. The current clinical insomnia prevalence was approximated at 29.9%.

Table 01: Distribution of participant demographic data and baseline characteristics

	No. (%)
Age (years)	
Mean ± SD.	36.7 ± 6.8
Gender	
Male	98
Female	102
Marital Status	
Single	81
Married	119
Weekly work hours	
< 36 hours	123
>36 hours	77
Sleep quality using PSQI	
Poor sleep	145
Good sleep	55
Anxiety features using HADS	
Non-case	81
Case	119

Table 02: Sleep and mood states of the respondents

Variables	Mean ± SD	95% CI
Sleep Quality during COVID-19		
Quality	36 (38.3)	35.5–41.1
Initiation	33 (29.8)	27.1–32.4
Duration	33 (29.1)	26.5–31.7
Insomnia (ISI ≥10)	34 (29.9)	27.2–32.5
In the previous month, you used sleep medication	10 (9.3)	7.6–10.9
Sleep Parameters		
SOL (min)	16.7 ± 32.7	14.8–18.6
WASO (min)	21.4 ± 34.5	19.8–25.1
EMA (min)	21.1 ± 31.4	17.9–22.3
Duration of Insomnia	8.9 ± 18.7	5.4–8.4
TST (hrs)	4.8 ± 1.9	6.7–6.9
TIB (hrs)	7.7 ± 1.4	7.6–7.8
SE, %	87.5 ± 12.9	76.7–88.3
Experiencing Stress	51 (45.0)	32.1–47.9

DISCUSSION

There were some preventive measures which is necessary to win this battle in Pakistan. The most important thing is to wash your hands properly for 20 seconds, use sanitizers and stay away from infected people[10]. Use masks and gloves and do not leave the house until it becomes very necessary[11]. Military hospitals and health facilities around the nation will be available to help with viral illness diagnosis and treatment, according to an announcement from the military. The most important thing is to be calm and pray for the better situation because there is a must win battle for Pakistan. As a nation it becomes our duty to protect our country, nation and ourselves. We hope for the better condition in our country as well as around the globe[12-13].

During the COVID-19 pandemic, sleepiness was linked to a dearth of masks accessible for use for a month. This is an important addition to our developing understanding of the COVID-19 pandemic, as it reveals a hitherto unknown mutation[14]. There has been a growing chorus of support for the broad usage of face masks, termed as "mass masking," by a number of experts and public health professionals. Although Hong Kong is a significant international travel hub and adjacent to the Chinese city of Wuhan, several analysis and early research have shown that mass masking was a contributing cause to the low incidence of COVID-19 infections in Hong Kong[15-17]. It is imperative that enough and high-quality face mask supplies are kept on hand for such a large-scale public health endeavour. While localised research and local news reports suggested that the market was oversaturated with counterfeit face masks, mask prices rose, and there were even periodic shortages of face masks in February and March, nationwide studies refuted these findings[18].

The COVID-19 virus is wreaking havoc on Pakistan's economy because of the escalating number of patients. Economic hardship and dread of a deadly illness have collided in the United States. Pakistan's economy would suffer irreparable damage if the nation were to remain in a state of emergency for an extended period. Currently, Pakistan lacks the resources to care for the ill and injured[19]. On a day-to-day basis, most people work. People would die from starvation or infection with the COVID-19 virus if the government was shut down. According to Pakistan's prime minister, a summit of nations vulnerable to the disease is being called for in the country's latest statement. Alternative to total shutdown: individuals should avoid gathering in big numbers, and the country should shut down partially to make sure the economy can provide the most necessities. This is to avoid a total shutdown[20].

CONCLUSION

It is concluded that COVID-19 is widely spreading in Pakistani doctors and it effects on their sleep quality, sleep initiation, and sleep duration had worsened since the outbreak of COVID-19. Mental health disorders and poor sleep quality are more widespread in the medical field because of the heightened danger of exposure during pandemic illnesses. Doctors who suffer from anxiety or depression are more likely to have sleep problems, and this is a fact that cannot be overlooked.

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