

Impact of working hours on stress and nervousness among doctors during the COVID-19 Corona pandemic

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Abstract

The COVID-19 pandemic has significantly impacted healthcare systems globally, placed unprecedented stress on medical professionals. This study examines the correlation between work hours and levels of stress and nervousness among doctors during corona pandemic. Through a combination of quantitative and qualitative methods, data were collected from 300 doctors working in government & private various hospitals in Lucknow. The findings highlight a direct relationship between extended work hours and increased levels of stress and nervousness, suggesting the need for policy adjustments to support the mental well-being of healthcare workers.

Keywords: COVID-19, doctors, work hours, stress, nervousness, healthcare workers, mental health

Introduction

The COVID-19 pandemic has put immense pressure on healthcare systems and workers worldwide. Doctors, being at the frontline, have faced not only the risk of infection but also overwhelming workloads. This study aims to investigate the impact of prolonged work hours on the mental health of doctors, specifically focusing on stress and nervousness levels. Understanding these effects is crucial for developing strategies to mitigate the negative consequences on healthcare workers' mental health and ensuring a sustainable healthcare system.

Research methodology

This research employs a Quantitative research approach. The sample consists of 300 doctors from various hospitals across different regions. Quantitative data were collected using standardized questionnaires measuring stress and nervousness levels. Qualitative data were gathered through in-depth interviews to gain deeper insights into the experiences of doctors. Statistical analysis was performed using SPSS to identify correlations between work hours and stress/nervousness levels.

Objectives

- To study the levels of stress and nervousness among doctors during the COVID-19 pandemic.
- To analyze the correlation between work hours and mental health outcomes.
- To provide recommendations for policy changes to support doctors' mental well-being.

Review of literature

Previous studies have highlighted the adverse effects of excessive work hours on mental health. For instance, a study by Aiken *et al.* (2002) ^[1] indicated that long work hours are associated with burnout and job dissatisfaction among nurses. Similarly, a study by Shanafelt *et al.* (2015) ^[3] found that extended work hours contribute to higher levels of stress and burnout among physicians. During the COVID-19 pandemic, studies have shown increased mental health

issues among healthcare workers (Lai *et al.*, 2020) ^[2]. However, there is limited research focusing specifically on the impact of work hours on stress and nervousness among doctors during the pandemic.

Research gap

While there is considerable literature on healthcare workers' mental health during the pandemic, there is a paucity of studies focusing specifically on the impact of work hours on doctors' stress and nervousness. This study aims to fill this gap by providing empirical evidence on this relationship during the COVID-19 pandemic.

Results and Discussion:

Table 1: Distribution of respondents including context who felt nervous and stressed at their workplace during the Corona period

N=300

Statement	Frequency	Percentage
In the past month, how many times have you felt nervous and stressed		
Many times	79	26.3
Sometimes	96	32.0
Never	27	9.0
Every Time	47	15.7
For a very short time	51	17.0
Total	300	100.0



Fig 1: Distribution of respondents including context who felt nervous and stressed at their workplace during the Corona period

Table 1. and Figure 1. the overwhelming majority of respondents, suggests that, specifically 32%, experienced feelings of nervousness and stress sometimes, 26.3% felt nervous and stressed many times during their tenure, and 17% said very rarely. They used to feel nervous and stressed during their tenure, 15.7% felt every time, and 9% never felt that they used to feel nervous and stressed during their tenure so they were not able to do their work. Have also had to face stress.

Table 2: Distribution of respondents regarding their working hours each day

N=300

Statement	Frequency	Percentage
Working hours each day		
6 - 8 hours	86	28.7
8 - 10 hours	80	26.7
10 - 12 hours	51	17.0
12-14 hours	42	14.0
Even more	41	13.7
Total	300	100.0



Fig 2: Distribution of respondents regarding their working hours each day

Table 2 & figure 2 the working hours of most respondents are shown.i.e. 28.7% worked 6-8 hours, 26.7% were 8-10 hours, 17% were working for 10-12 hours, 14% were 12-14 hours and 13.7% were working more than that. doctors wear reporting higher stress levels during the pandemic, including decreased sleep quality, emotional fatigue, physical health problems, imbalance in family and social life, among other problems such as higher stress levels and anxiety. There was a significant increase in the rate of emotional exhaustion due to dealing with serious cases and deaths, many doctors reported experiencing physical health problems such as skin problems, muscle pain, fatigue, insomnia, exhaustion due to the constant use of PPE. And complained of sleep disturbance. The main reasons for this were "long working hours, constant patient care, and fear of infection". As a result, they had increased symptoms of depression and post-traumatic stress disorder (PTSD). Doctors' family and social problems due to long working hours life was affected. He found it difficult to spend time with family and friends, which increased the emotional stress of doctors during Covid-19.

The analysis revealed a significant positive correlation between work hours and levels of stress and nervousness among doctors. Doctors working more than 60 hours per week reported higher stress levels compared to those working fewer hours. Qualitative interviews highlighted

factors contributing to stress, such as inadequate rest, fear of infection, and emotional exhaustion. The findings underscore the need for interventions to reduce work hours and provide psychological support to doctors.

Table 3: Distribution of respondents with reference to facing mental stress due to work.

N=300

Statement:	Frequency	Percentage
Do you face mental stress due to your work		
Yes	119	39.7
NO	70	23.3
Sometime	83	27.7
Never	16	5.3
Always	12	4.0
Total	300	100.0

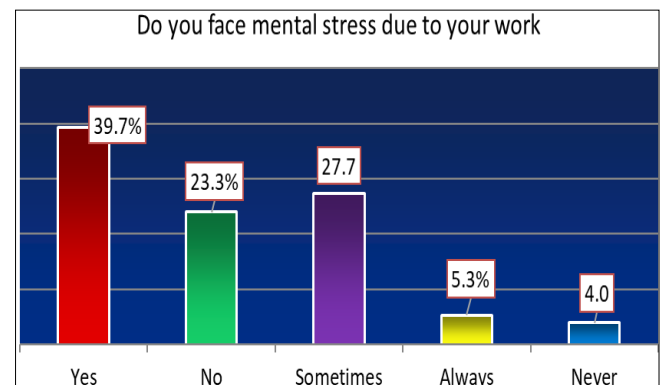


Fig 3: Distribution of respondents with reference to facing mental stress due to work

Table 3 & figure 3 indicates that most of the respondents face mental stress because of their work as 39.7% respondents said yes, 23.3% respondents said no, 27.7% respondents said sometimes experiencing mental stress due to their work during the pandemic as well as due to their workplace and personal, family safety situations, 5.3% respondents said always and 4% respondents said never. This finding can be supported by the research done by Spoorathi *et al.* (2020) who found that healthcare workers, including doctors, experienced higher levels of anxiety and stress due to the pandemic, which led to negative mental health consequences. This emphasizes the need for organizations to provide additional support to healthcare workers in times of crisis, such as during pandemics or other emergencies.

Table 4: Illustrates the distribution of respondents based on the frequency of being upset by unexpected events in the past month

N=300

Statement	Frequency	Percentage
In the past month, how many times have you been upset by something unexpected happened		
Many times	108	36.0
Sometimes	99	33.0
Never	26	8.7
Every Time	36	12.0
For a very short time	31	10.3
Total	300	100.0

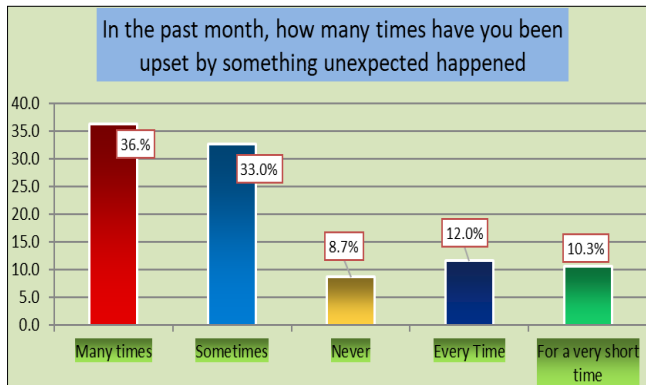


Fig 4: Illustrates the distribution of respondents based on the frequency of being upset by unexpected events in the past month

Table 4 & figure 4 Indicates that most of the respondents were disturbed by some unexpected event as 36% of respondents were disturbed many times, 33% of respondents sometimes, 8.7% never, 12% every time and 10.3% very rarely. Rohit Garg's (2021) study showed that almost all doctors working in COVID-19 wards during the pandemic suffered from perceived stress. Younger doctors, resident physicians and those who spend more time with patients tend to be more stressed. During these difficult times, stress management should be a priority among doctors. A study investigated the occurrence and intensity of stress and anxiety among physicians in Erbil Governorate during the initial stages of the COVID-19 outbreak in the Iraqi Kurdistan Region. Additionally, the study explored the primary factors associated with stress and anxiety among this group the research revealed a notable prevalence of stress among the surveyed physicians, with 67.3% experiencing moderate stress and 17.3% reporting high stress levels. Similar findings from other studies indicate elevated stress levels among healthcare workers amid the COVID-19 pandemic. For instance, research from China indicated a high stress rate of 71.5% among healthcare workers exposed to COVID-19.

Here are tailored policy recommendations for hospitals, the government of India, the health sector, and the WHO to support doctors' mental well-being during the COVID-19 pandemic:

Hospitals

1. Mental health programs: Establish in-house mental health support services, including counseling and psychotherapy. Implement peer support networks where doctors can discuss their experiences and receive support from colleagues.

2. Workload management: Rotate shifts and assign adequate rest periods to prevent burnout. Recruit additional staff or use volunteers to alleviate pressure on current staff.

3. Training and development: Provide resilience and stress management training. Offer workshops on coping mechanisms and mental health awareness.

4. Safe working conditions: Ensure consistent and adequate supply of PPE. Implement strict infection control protocols to minimize risk.

5. Recognition and rewards: Regularly acknowledge the hard work and dedication of doctors through awards and public recognition. Offer financial incentives such as hazard pay or bonuses.

Government of India

1. Policy and regulation: Develop national guidelines for mental health support for healthcare workers. Mandate mental health screenings and support services for all healthcare workers.

2. Funding and resources: Increase funding for mental health programs specifically targeting healthcare workers. Allocate resources for training programs and workshops focused on mental health and resilience.

3. Legislation: Enact laws that protect healthcare workers' rights to mental health care. Ensure mandatory time off and adequate rest periods for healthcare workers.

4. Public awareness campaigns: Launch public awareness campaigns to reduce the stigma around mental health in the healthcare sector. Promote the importance of mental well-being among healthcare professionals.

Health sector

1. Comprehensive health policies: Develop and implement comprehensive health policies that include mental health support as a critical component. Create guidelines for hospitals and healthcare institutions to follow in supporting the mental well-being of their staff.

2. Collaboration and support: Foster collaboration between public and private health sectors to share resources and best practices. Establish a national helpline for healthcare workers to access mental health support and counseling.

3. Continuous monitoring: Monitor the mental health of healthcare workers continuously and adapt policies as needed. Conduct regular surveys to assess the mental well-being of healthcare workers and identify areas for improvement.

World health organization (WHO)

1. Global guidelines: Develop global guidelines for mental health support for healthcare workers during pandemics and other crises. Provide a framework for countries to adapt and implement these guidelines according to their specific needs.

2. Training and resources: Offer training programs and resources to support the mental well-being of healthcare workers worldwide. Provide access to international best practices and evidence-based strategies for mental health support.

3. Research and data: Conduct and disseminate research on the mental health impact of pandemics on healthcare workers. Share data and insights with member countries to help them develop effective mental health support programs.

4. Advocacy: Advocate for the importance of mental health support for healthcare workers at the global level. Encourage countries to prioritize mental health in their healthcare policies and funding allocations. By implementing these recommendations, hospitals, the government of India, the health sector, and the WHO can significantly enhance the mental well-being of doctors and other healthcare workers during the COVID-19 pandemic and beyond.

Conclusion

The study demonstrates that prolonged work hours during the COVID-19 pandemic have exacerbated stress and nervousness among doctors. These findings highlight the urgent need for policy interventions to ensure manageable work hours and adequate mental health support for healthcare workers. Addressing these issues is critical for maintaining the well-being of doctors and ensuring the effective functioning of healthcare systems during crises.

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