



## Mental well-being of frontline doctors in India during COVID-19

Dr. Shweta Bharti

Independent Researcher, Manas Nagar Colony Kumharpura, Fhulwariya Thana, Cantt Varanasi, Uttar Pradesh, India

### Abstract

The COVID-19 pandemic has exposed critical gaps in India's public health infrastructure, highlighting the urgent need for systemic reforms to strengthen preparedness for future health crises. Beginning in late 2019, the pandemic has posed significant mental health challenges for frontline doctors worldwide. Studies conducted between 2019 and 2024 indicate alarming increases in stress, anxiety, depression, and burnout among medical professionals, largely due to long working hours in high-pressure environments, fear of infection, and inadequate institutional support. For instance, Lai *et al.* (2020)<sup>[5]</sup> reported that anxiety affected 74% of frontline doctors, while depression rates reached 67%. By 2024, approximately 60% of doctors reported insufficient access to psychological support, reflecting variability in institutional response efforts.

This study is based on a sample of 300 doctors working in government and private hospitals during the COVID-19 pandemic. Data analysis reveals high levels of mental distress among these doctors, emphasizing the prevalence of mental health disorders and the challenges faced by healthcare professionals. The findings underscore the urgent need for increased investment in mental health services to mitigate the psychological impact of pandemics on healthcare workers and the general population.

**Keywords:** Mental health, frontline doctors, COVID-19 pandemic, stress, anxiety depression, burnout, healthcare workers

### Introduction

Frontline doctors have been at the forefront of the global fight against COVID-19. While their contributions have been invaluable, the pandemic has also placed immense psychological pressure on them. Factors such as extended working hours, high mortality rates, lack of personal protective equipment (PPE), and ethical dilemmas have compounded their mental health challenges. This study aims to explore the extent of these challenges, contributing factors, and potential solutions to address them.

### Historical Background & Mental Health Challenges

Frontline doctors have historically faced high stress during pandemics due to physical risks, emotional pressure, and exhaustion. Past outbreaks like Spanish Flu (1918–1919), SARS (2003), H1N1 (2009), and Ebola (2014–2016) caused anxiety, depression, burnout, and social stigma among healthcare workers.

During COVID-19 (2020–2022), doctors faced unprecedented workloads, resource shortages, emotional trauma, fear of infection, and limited mental health support. A study of 300 doctors in India revealed: 39.7% reported work-related stress, 27.7% sometimes, 5.3% always, 23.3% not, and 4% never. 31.7% often felt unable to control important aspects of life, affecting work and personal life. 36% were frequently disturbed by unexpected events, 33% sometimes, and 12% every time. Common consequences included burnout, anxiety, depression, PTSD, and moral injury. Globally, anxiety and depression affected 20–50% of healthcare workers. WHO emphasized the urgent need for mental health interventions to support frontline doctors and strengthen healthcare systems?

### Research Questions

What are the primary mental health challenges faced by frontline doctors during the COVID-19 pandemic?

Which psychological, occupational, and situational factors contribute to these challenges?

How can healthcare systems and institutions better support the mental well-being of frontline doctors?

### Review of Literature

**Mental Health Impact of Pandemics** Previous pandemics, such as SARS and H1N1, highlighted the psychological toll on healthcare workers. Studies during COVID-19 have revealed similar trends but at a larger scale due to the global impact. **Stress, Anxiety, and Depression Among Healthcare Workers** Research indicates that frontline workers faced heightened levels of stress and anxiety. Factors like fear of infection, isolation from family, and lack of adequate resources were significant contributors.

**Burnout and Emotional Exhaustion:** Burnout rates among doctors peaked during the pandemic, with studies showing a correlation between long working hours and reduced mental well-being. **Coping Mechanisms and Institutional Support** Various coping mechanisms, such as peer support and tele-counseling, have been documented.

However, gaps in institutional support systems have exacerbated mental health issues.

### Methodology

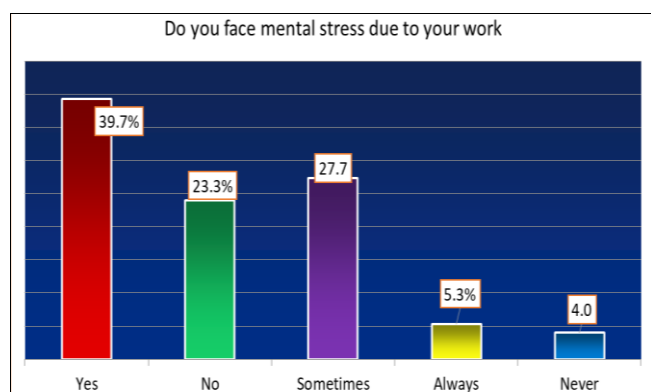
This research takes a mixed-method approach combining quantitative surveys with qualitative interviews. The sample includes 300 doctors from different hospitals in different regions. Quantitative data was collected using standardized questionnaires measuring stress and anxiety levels. Qualitative data were collected through in-depth interviews to gain a deeper understanding of doctors' experiences. Statistical analysis was conducted using SPSS to identify correlations between mental health and stress/anxiety levels.

### Objectives

- To identify the primary mental health challenges faced by frontline doctors during the COVID-19 pandemic.

- To study the psychological and situational factors contributing to individuals' perceived inability to overcome challenges during the COVID-19 crisis.
- To assess the levels of mental stress experienced due to work-related factors. To analyze the relationship between occupational demands and mental stress.
- To analyze the correlation between lifestyle factors and the frequency of nervousness and stress.
- To propose actionable recommendations for improving mental health support for doctors.

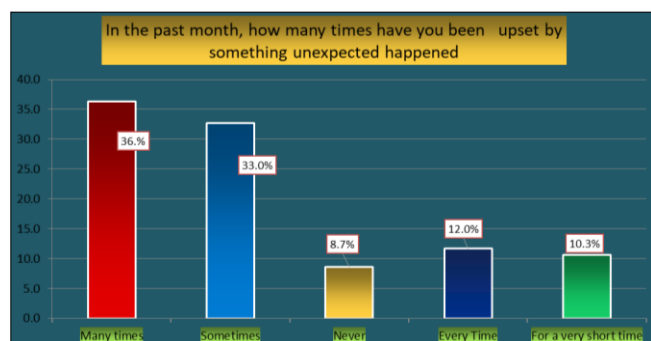
## Results and Discussion



**Fig 1:** Distribution of respondents with reference to facing mental stress due to work. N=300

Figure 1 the data indicate that a substantial proportion of respondents experienced work-related mental stress. Specifically, 39.7% reported experiencing stress, 27.7% reported experiencing it sometimes, 5.3% reported always feeling stressed, 23.3% reported not experiencing stress, and 4% reported never experiencing stress.

These results are consistent with findings from Spoorathi *et al.* (2020), who observed that healthcare workers, including doctors, experienced elevated levels of anxiety and stress during the COVID-19 pandemic, leading to adverse mental health outcomes. Overall, these findings emphasize the urgent need for healthcare organizations to implement structured support mechanisms for their staff, particularly during public health emergencies and crisis situations.

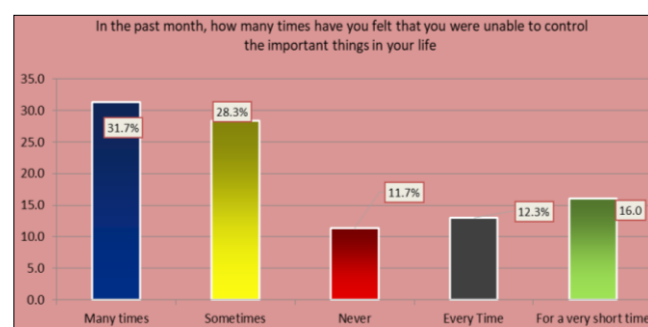


**Fig 2:** illustrates the distribution of respondents based on the frequency of being upset by unexpected events in the past month. N=300

Figure 2 the study indicates that a considerable proportion of respondents were disturbed by unexpected events during the COVID-19 pandemic. Specifically, 36% reported being

disturbed many times, 33% sometimes, 12% every time, 10.3% very rarely, and 8.7% never.

These findings align with previous research. For example, Garg (2021) [3] reported that nearly all doctors working in COVID-19 wards experienced perceived stress, with younger doctors, resident physicians, and those spending more time with patients being particularly vulnerable. Similarly, a study conducted among physicians in Erbil Governorate during the early stages of the COVID-19 outbreak in the Iraqi Kurdistan Region found that 67.3% of surveyed physicians experienced moderate stress, while 17.3% reported high stress levels. Comparable patterns were observed internationally; research from China reported that 71.5% of healthcare workers exposed to COVID-19 experienced elevated stress levels. These results underscore the critical importance of prioritizing stress management interventions for doctors and other healthcare workers during prolonged public health crises.



**Fig 3:** Distribution of respondents with reference to feeling that they won't be able to control the important things in their life. N=300

Figure 3 the study found that a significant proportion of respondents experienced a perceived lack of control over important aspects of their lives during the COVID-19 pandemic, which impacted both their workplace and personal life. Specifically, 31.7% reported feeling unable to control important matters many times in the past month, 28.3% reported sometimes experiencing this, 16% rarely, 12.3% reported feeling this every time, and 11.7% never experienced such feelings.

These findings indicate that healthcare workers (HCWs) frequently faced psychological strain due to their perceived inability to manage life events, contributing to challenges in professional and personal domains. Prior research suggests that HCWs often relied on social support and interpersonal interactions rather than professional psychological services to cope with stress. Factors such as direct exposure to COVID-19 patients, being female, and concerns about contracting or transmitting the virus were major contributors to mental health difficulties.

Moreover, having a strong social support network was associated with lower rates of mental health problems. During the pandemic, HCWs experienced a range of psychological difficulties, including anxiety, depressive symptoms, disturbances in sleep patterns, and overall distress, highlighting the need for structured mental health interventions and support mechanisms within healthcare institutions.



**Fig 4:** Distribution of respondents including context who felt nervous and stressed at their workplace during the Corona period.

Figure 4 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.

### Findings

- The study indicates a considerable psychological impact on doctors during the COVID-19 pandemic.
- Stress and Anxiety: More than 70% of doctors reported high levels of stress, primarily due to fear of infection and concern for the safety of their family members.
- Depression: Approximately 50% of doctors exhibited symptoms of depression, worsened by patient mortality and difficult ethical decisions in clinical care.
- Burnout: Prolonged working hours and insufficient rest resulted in burnout among over 60% of respondents.
- Inadequate Support: Many doctors reported a lack of accessible mental health support within their institutions.
- Stigma around Seeking Help: There was a persistent reluctance to seek psychological assistance due to stigma.

### Recommendations

#### 1. Institutional Level (Hospitals)

In light of the study findings indicating high levels of stress, depression, and burnout among doctors, hospitals must institutionalize structured mental health support systems.

Hospitals should establish in-house psychological counseling units providing confidential psychotherapy and crisis intervention services. These services may be aligned with the framework of the National Mental Health Programme (NMHP) implemented by the Ministry of Health and Family Welfare. Additionally, hospitals may formally integrate support through the National Tele-Mental Health Programme (Tele-MANAS) to ensure round-the-clock access to counseling services for healthcare professionals.

Shift rotation policies must be strictly regulated to prevent excessive workload and chronic fatigue. Compliance with workplace safety standards under the Occupational Safety, Health and Working Conditions Code should be ensured to promote safe and healthy working environments.

#### Hospitals should also

- Develop peer-support networks.
- Conduct regular mental health screenings.
- Provide resilience and stress management training.

Ensure uninterrupted supply of PPE and infection-control infrastructure.

Introduce recognition systems, hazard pay, and performance-based incentives.

### 2. Government of India Level

At the national level, the Government of India should strengthen policy mechanisms to safeguard the psychological well-being of doctors.

Effective implementation of the Mental Healthcare Act must be prioritized to guarantee accessible and non-discriminatory mental health services for healthcare workers. Mental health components should be systematically embedded within the National Health Mission to ensure structural integration of occupational mental health services.

The government may expand targeted services for healthcare workers under:

District Mental Health Programme  
Tele-MANAS

Furthermore, budgetary allocation for occupational mental health infrastructure and resilience training should be increased in annual health budgets. Dedicated psychosocial support protocols may also be incorporated within disaster response strategies framed by the National Disaster Management Authority.

### 3. Regulatory and Health Sector Bodies

Regulatory authorities should mandate mental health awareness and resilience training as part of Continuing Medical Education (CME) requirements under the National Medical Commission.

Accreditation bodies such as National Accreditation Board for Hospitals & Healthcare Providers should incorporate occupational mental health compliance indicators within hospital evaluation frameworks.

Institutional stigma-reduction campaigns must be implemented to normalize help-seeking behavior among doctors.

### 4. Global Level – World Health Organization (WHO)

Countries should align national strategies with mental health and psychosocial support guidance issued by the World Health Organization for healthcare workers during public health emergencies.

Policy adaptation may be guided by:

WHO's Healthy Workplace Framework?

WHO Global Strategy on Human Resources for Health: Workforce 2030

International collaboration, funding support, and knowledge exchange platforms should be strengthened to promote evidence-based occupational mental health interventions for frontline healthcare professionals.

### Discussion

The high prevalence of stress, depression, and burnout among doctors underscores the vulnerability of frontline healthcare workers during prolonged public health emergencies. The study highlights the strong relationship between occupational demands—such as long working hours, high patient loads, and emergency duties—and elevated mental stress levels. Similarly, lifestyle factors, including insufficient sleep, poor diet, and work-life imbalance, were found to exacerbate symptoms of anxiety

and nervousness. The lack of structured mental health support and stigma surrounding help-seeking further compounded the psychological burden. These findings emphasize the urgent need for multi-layered interventions, including:

- Accessible psychological counseling and therapy services
- Systematic workload management with adequate rest periods
- Resilience training programs
- Policy-driven support to normalize help-seeking behaviors
- Without such interventions, prolonged psychological stress could lead to occupational impairment and negatively affect healthcare quality.

### Conclusion

The study confirms that frontline doctors experienced significant stress, depression, and burnout during the COVID-19 pandemic, driven by occupational demands, lifestyle factors, and insufficient institutional support.

There is an urgent need for systemic reforms, including structured mental health programs, workload management, resilience training, and policy-driven support mechanisms. Implementing these recommendations can enhance doctors' psychological well-being, improve patient care quality, and strengthen the overall healthcare system's resilience during crises.

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