

# A Study of Occupational Stress on Doctors during Covid 19 Pandemic with Reference to North West Delhi

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## ABSTRACT

This research paper aims to assess the occupational stress among professional physicians whereas engaging the COVID-19 therapies in the research location. The Coronavirus pandemic in India is part of a worldwide pandemic caused by the brutally acute pulmonary syndrome virus. Physicians and the general public have expressed concern, grief, fear, and sadness as a result of the COVID-19 eruption. Doctors are more likely than the general population to suffer from a variety of mental diseases. All main and tertiary data were used in the inquiry. Secondary data was gathered on COVID-19 diseases and physician treatments. The important information obtained from clinicians relates to the COVID-19 treatment. The study has a sample size of 353. The responses were compiled into excel sheets, which were then imported into SPSS program versions 21 for analysis. For evaluating the framed hypothesis, the researchers used simple statistical distribution and a t-test. According to the study, the doctors used COVID-19 treatment for the initial 6 weeks, and % of the professionals had high stress levels. The study also found that when government hospital doctors started using COVID-19 therapy in hospitals, their work culture altered dramatically. According to the poll, government hospital doctors were unable to maintain a work-life balance. While participating in COVID-19 treatments in the research area, the doctor has had a significant impact on their personal lives and causes job stress.

## KEYWORDS

Coronavirus, Doctor, Health Care, Quarantine, Stress.

## 1. INTRODUCTION

The coronavirus illness 2019 (COVID-19) the epidemic has brought enormous challenges difficulties to the global healthcare system, exposing serious flaws in the country's epidemic preparation. Individuals have been forced to radically alter their lifestyles to "flatten the curve" and participate in the social distance to give an overburdened healthcare system enough time to react to the new coronavirus[1]. This situation is so serious in health care that the COVID-19 pandemic has necessitated the use of war jargon. Physicians are being redeployed to the front lines, and detailed data are being compiled to monitor daily casualties while military-style makeshift hospitals are being built[2]. The effect of the virus on our culture has been likened to World War II by CNN. In their personal lives, radiologists must adapt to the pandemic's many challenges, as well as the stresses of caring for COVID-19 patients while reviewing the continually increasing information around the virus's containment and control, all while operating in a medical system with minimal funds[3].

During major medical crises, medical services are overworked, making work life even more difficult than normal. When a

pandemic occurs, the patients in need of hospitalization increases dramatically, placing a strain on both medical equipment and personnel. Moreover, physicians perceive a higher danger to themselves as a result of their exposure to the sickest patients, which adds to their stress[4]. The scarcity of individual defensive equipment that might occur throughout an epidemic adds to the stress. The perception of virus danger is justified: According to a professional danger from 2009 swine flu epidemic a meta-study, healthcare workers had double the chance of catching the virus as comparator groups. This increased risk may be related to physicians' and nurses' increased exposure to patients' respiratory secretions[5].

The third source of anxiety is the higher danger of infections for front medical workers' families workers. According to According to statistics during the 2009 swine flu epidemic, 20% of people died. of physicians and nurses who had Symptoms have been documented in at minimum one household. member. Social distance is one strategy for front-line clinicians to reduce the risk of infection in their families[6]. Despite the well-documented protective effects of social interaction and support during times of stress, social distance deprives the person of a critical protect yourself from mental illness challenges at exactly the moment when they are most vulnerable to stress.

Past diseases (like as the SARS pandemic in 2003, the MERS epidemic in 2012, or the Ebola infections in West Africa) studies demonstrated that medical professionals are susceptible to a range of illnesses. psychiatric maladies, include trauma, that can last for weeks after the outbreak. The link between stressful life experiences and suicide has been widely established, and disaster-related trauma may increase suicidal thoughts among first responders Concerns about health problems and social isolation isolation, as well as societal beliefs of "infection stigma," all contribute to psychological anguish[7].

Doctors, on the other hand, may have harmful mental health impacts found on doctors if they had direct contact with affected people. Even though the stresses of when an epidemic disease outbreak, front-line healthcare is essential. epidemic might result in sickness absence and increased staff turnover, most data shows that physicians and nurses sense a strong expert commitment to continuing working despite the risk. Given the challenges of maintaining Throughout an epidemic, high-quality healthcare is essential, as well as physicians' unwillingness to seek treatment or confess their troubles, it's probable that presenteeism is directly linked to this kind of professional devotion. Indeed, when compared to a variety of other professional categories, doctors had the greatest incidence of 'infectious disease presenteeism,' according to a recent assessment.

Doctors may encounter difficult ethical issues and, perhaps, moral harm as they attempt in the face of inadequate resource, must

strike a balance between their personal safety and the interests of the patients, families, and employees. When one feels driven to take actions that go against one's ethical or moral principles, moral damage might occur. The impact of moral harm on later mental health might be influenced by the level of assistance offered to workers both throughout and before such incidents.

### 1.1. Controlling the institution's physicians' anxiety during epidemic

Employer assistance it is particularly beneficial for medical staff throughout epidemics and disaster administration. These assistances must comprise precautions for example, healthcare and economic assistance physicians and nurses who fall unwell, as well as malpractice protection for their families. When healthcare personnel believes that your work are acknowledged and rewarded in such manner by their bosses and authority, their motivation and morale increase dramatically. The reported efficacy of medical personnel training and individual protection equipments, as well as the general leadership and communications efficiency of the company, are all critical components of this support. These qualities are crucial not just for inspiration, but they're also linked to improved psychosomatic consequences among front-line healthcare workers during epidemics.

There are several approaches to combat workplace stigma related to mental health. The cornerstone for this is to foster a culture that values exposed message and strives to de-stigmatize psychological fragility. Creating actions which encourage rather than address problematic attitude desirable ideals, as well as extending knowledge and supporting good behavioral change, are examples of this. Time to Change, an anti-stigma initiative, offers a set of easy interventions for use in the workplace. In health emergencies and catastrophe management, peer assistance training is available is effective elsewhere. The Trauma Risk Management program (TRiM), for example, trains non-clinical workers to evaluate peers after traumatic situations and give short-term assistance or referral to professional treatment if necessary. Mental Health First Aid (MHFA) is based on a similar approach, and both it and TRiM may help to reduce workplace stigma around mental health.

### 1.2. Occupational Stress Factors among northwest Delhi doctors during COVID19

#### 1.2.1. Job stress:

Job-related anxiety infection-contracting doctors result in severe understaffing in hospitals. In such a setting, physicians must cope with a lack of funds, long work hours, and continuously changing responsibilities, as well as working in an unfamiliar environment that causes great mental anguish, even among new colleagues. Unprecedented quarantine/isolation settings, as well as strict interpersonal distance control, worsen this. According to a Western study, physicians are also obligated by provincial orders not to operate in numerous regions following the epidemic, resulting in financial issues.

### 1.3. Workplace with a High Risk of Infections

Doctors who work in high-risk environments are more likely to get illnesses. According to research conducted in Wuhan, China, up to 87.5 percent of physicians had been infected with COVID-19. Doctors experience fear, anguish, and stress as a result of the high risk of exposure to sickness, which is sometimes exacerbated

by the likelihood that their loved ones are infectious, resulting in serious mental health issues.

### 1.4. Social distancing

The avoiding of physical contact is regarded as a key element in the continuing COVID-19 to combat viral sickness. As a result, physicians feel compelled to keep their loved ones away, robbing them of the sensitive connection they seek. Moreover, maintaining The absence of emotional participation from the essential familial relatives is due to social distance people, resulting in interpersonal conflict and mental health difficulties.

### 1.5. Lack of PPE Kits

It's fairly unusual for front-line physicians to have a restricted supply of personal safety items. Doctors experience worry and discomfort as a result of this situation. Uncertainty regarding the suitability of PPEs in a given situation exacerbates the issue, leading to confusion and worries. Excessive usage of PPEs, on the other hand, has been identified as a significant source of dissatisfaction among doctors. According to research, PPE is a major impediment to connecting successfully with patients and coworkers, and working primarily with PPEs for long period's leads to serious burnout.

### 1.6. Quarantine

Quarantine is a critical step in preventing contamination during a pandemic. Front-line physicians must also work in segregated wards where they are the main caregivers for their patients. In the absent of essential interior sensation and societal interaction, strengthening, doctors suffer from burnout and frequently sense a lack of self-control. Furthermore, front-line physicians are usually required to live in seclusion, denying them psychological assistance from close colleagues and family members in the medical field, leading to a variety of psychiatric problems.

## 2. LITERATURE REVIEW

V. Ceri and I. Cicek [8] discuss that In the battle against the medical staff and the COVID-19 epidemic are at a greater risk of depression and psychological difficulties, suggesting that there is an immediate need for healthcare personnel to have access to psychological help. Communities and categories at risk must be included in focused intervention as soon as practicable. The reality that uncontrolled long-term stress mental illnesses that arise next the epidemic might lead to alcohol and other drug abuse illustrates that even moderate psychological responses need medical attention. There are a variety of psychiatric assistance options available, including psychoeducation and psychiatric counseling. therapy, might be delivered through online sessions, or peer or colleague chat lines could be provided in this fashion. There is evidence that psychosocial 1st aid may be effective is useful, and that all healthcare practitioners should practice psychological first aid.

I. Podder et al. discusses that during the COVID-19 epidemic and lockdown, all frontline physicians, including dermatologists, are at risk of developing increased stress, despite dermatology being usually seen as a low-stress outpatient specialty. Top factors include fear of infecting themselves, their families, and coworkers, as well as a lack of workplace protections. Quarantined living circumstances are associated with economic uncertainties and the occurrence of a susceptible household members. As a result, all frontline physicians should be constantly controlled as a high-risk category for mental stress, with a specific focus on females, and proper training and psychological assistance should be given before deployment. More protective

gear and strong family support may help them cope with stress and prevent the healthcare system from collapsing in the case of a public health emergency[9].

J. E. Arnetz et al.[10] discusses that As a consequence of the coronavirus illness (COVID-19) epidemic, nurses have being subjected to circumstances that jeopardize their health, well-being, and capacity to work. Doctors' views and well amid the present crisis will be used to identify sick people at risk and potential avenues of organisational interventions. must be researched. The purpose of this study was to see how a group of American doctors felt regarding the most common sources of stress throughout the initial phases of the coronavirus epidemic. A cross-sectional internet poll of 695 doctors in the Us phases was conducted in May 2020. Content analysis was performed on nurses' responses (n = 455) to an open-ended inquiry on the most stressful occurrences they had experienced throughout the pandemic. Six distinct themes emerged from the study: self-exposure/infection, others' illness/death, the workplace, professional protection equipment/supplies, unknowns, and politics. Two sub-themes addressed pandemic-related limits as well as feelings of inadequacy and powerlessness towards patients and their treatment. In response to the outbreak, more than 50% of all remarks was concerning the stress generated by job issues. During this pandemic, healthcare companies should create opportunities for nurses to speak about their stress, Encourage one others and provide proposals for workplace improvements.

Research Question:

- What are the reasons for stress on doctors during Covid-19?

### 3. METHODOLOGY

#### 3.1. Research Design

For categorical variables, data Statistics and percent, as well as average standards deviations for quantitative data, were presented. Stata was used to create the statistics and contingency tables were used to do comparisons between categorical variables. ANOVA was used to do comparisons of quantifiable characteristics, such as anxiety levels at work throughout the epidemic based on profession practices. The link among arithmetic measures such as stress levels and age was investigated using the Pearson test. To assess the risk variables for occupational stress, logistic regressions were used. The odds ratio (OR) and 95 percent confidence intervals were used to express the findings. Multicollinearity and relations among variables are being investigated. received special attention: 1) investigating the connections between covariables, 2) calculating the variance inflation factor, and 3) assessing the effect of adding or deleting variables in the multivariable model. We first performed multivariate regressions for every explaining factor, then added one reasonable explaining factor at a time to the position of healthcare practitioners and the facts of having a doctor or perfusionist personnel.

#### 3.2. Instrument Used

##### 3.2.1. Google forms

Google Form is an internet surveys management application included with Google's free Google Docs Edit package. The service includes Google Docs, Google Worksheets, Google Presentations, Google Graphics and Google Websites. Google Forms is one offered as a network application.

##### 3.2.2. Anova

Analytical of ANOVA is a statistical analytic approach that divides reported collective variation inside a dataset into two categories: systematic elements and unexpected variables. The randomized variables had no analytical influence on the provided data set, however the systemic elements do. In a deterioration education, experts use the ANOVA test to analyze the influence of independent factors on the dependant variables.

##### 3.2.3. Stata

Stata is a state-of-the-art statistics computer tool for data administration, visualisation, analytics, and automatic reports developed by state corp. Academics use it in a variety of fields, include economic, psychology, politics, medicine, and epidemiological.

#### 3.3. Data Analysis

During the COVID-19 pandemic, an inter-segmental study was planned to look at physicians' psychological responses and the underlying causes. We utilized Google Forms to create an online survey to reduce face-to-face interactions and ease the involvement of physicians who are working hard during this situation. We contacted a convenient sample of doctors to take involved in this research. The study was conducted across a variety of specialties and on a variety of social media platforms. At each stage of the poll, all respondents was offered the opportunity to say yes or no. of confirming their willingness to engage in the study by proceeding to the next stage. The data was collected between May 10 and August 25, 2020. There were questions on demographic and personal characteristics, drug usage, fatigue, depressed disorders, and psychological anxiety in the study. The study's invitation link has been sent to 1721 clinicians throughout the nation. Participants may withdraw at any moment, according to the letter/link of invitation, and their desire to participate was reflected in the survey completion. Throughout six weekends, the email containing the survey was sent out again. If no one responded in the initial place, weekly reminders were sent out for the following five weeks. The confidentiality of the data was maintained, and no sensitive information about the participants was disclosed to anybody. Additionally, self-designed study questions were utilized to assess aspects such as drug abuse, amount of engagement Healthcare errors and physician violence may occur in any recreational activity.

#### 3.4. Data Collection

To better assess the intensity of stress among physicians, we collected data on tension levels and durations to better evaluate the impact of COVID-19 on stress levels (Figure 1). The bulk of responders indicated 4 to 6 weeks as the length of their stress, indicating that their tension levels had risen since COVID-19 was introduced.

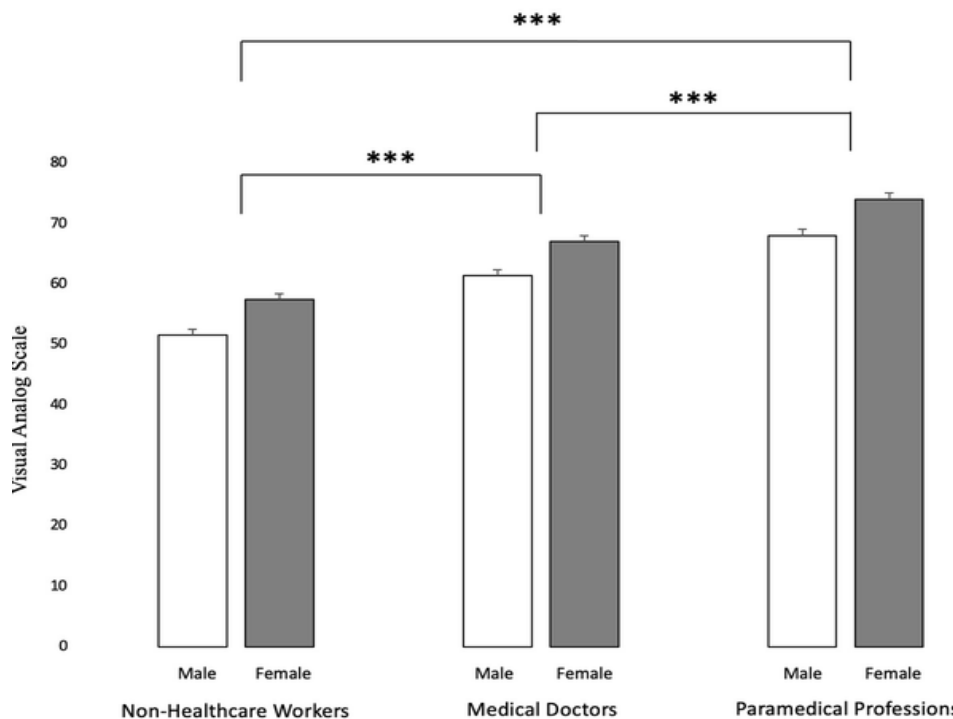


Figure 1: Diagrammatic Representation of stress level of healthcare workers

Table 1: Represent the Stress Level of the doctor due to COVID-19

	Duration of stress						Total
	Less than a month	1 to 3	4 to 6	6 months to 1 year	More than 1 year	More than 1 year	
Mild	29	29	42	0	0	0	100
Moderate	10	82	94	1	2	0	189
Severe	3	36	73	0	1	0	113
Extreme	4	17	22	3	2	0	48
Total	46	164	231	4	5	0	450

#### 4. RESULT AND DISCUSSION

A total of 1478 medical practitioners were contacted for the study. 85 e-mails were returned, while 78 people opted out of the survey at different points. Only 450 (34.22 percent) of the remaining 1607 medical professionals replied to the survey as shown in Table 1.

Males made up the bulk of the respondents (n = 252; 56.0 percent). Women made up 43.1 percent (n = 194) of the total, while some participants chose "Prefer not to say" (n = 4; 0.9 percent). As shown in Figure 2 the 3 age groups in the middle (Age: 30-60 Yrs.) had nearly equal distribution, with the lower and upper age brackets receiving fewer responses, implying that The bulk of the replies were from practicing physicians, but doctors between the ages of 20 and 30, the maximum of whom will be candidate doctors, got less responses., implying that they were less involved in active medical duties.

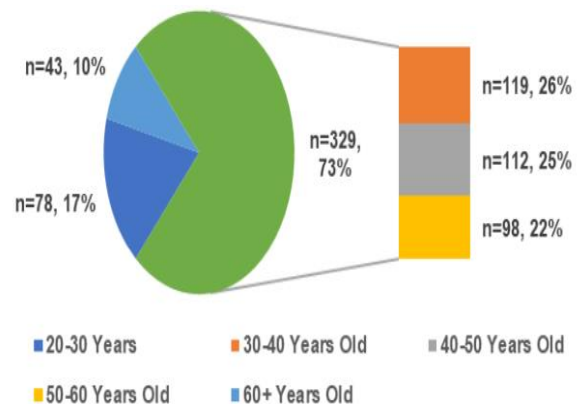
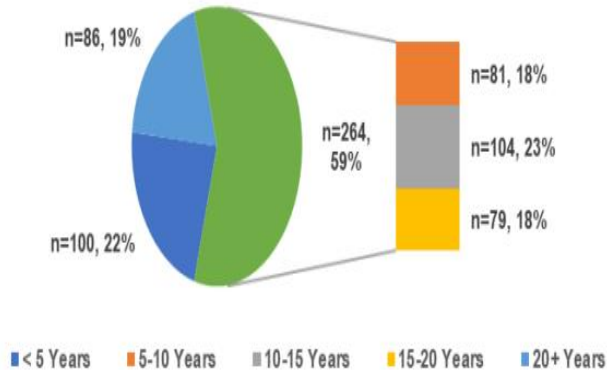


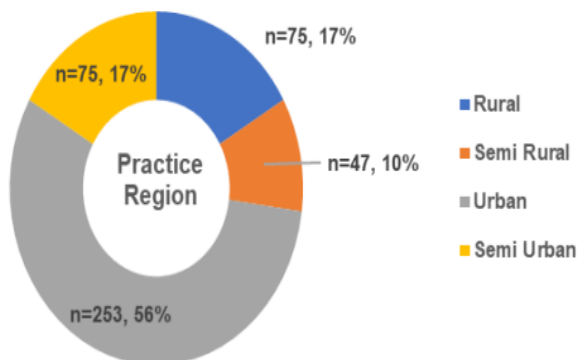
Figure 2: Diagrammatic Representation of age distribution of the respondents

We separated respondents' experience years into 5-year brackets to accommodate for diverse knowledge opinions, since job-related pressure fluctuates depending on, but not limited to, an individual's experience level (Figure 3).



**Figure 3: Diagrammatic Representation of experience of respondents in the year**

We provided respondents the option of choosing Rural, semi-rural, city, and quasi are the four groups in which they practice. This allowed us to acquire a more comprehensive picture. In our study, the majority of respondents (n = 253, or 56.2 percent) came from the urban area (Figure 4).



**Figure 4: Diagrammatic Representation of practice area for respondents**

## 5. CONCLUSION

In contrast to the Western Pacific and European nations, India was afflicted by the epidemic relatively late, despite COVID-19's worldwide distribution. As of October 7th, 2020, the nation has recorded around 9,07,883 confirmed cases and 1,04,555 fatalities. COVID-19 has also affected a considerable number of front-line clinicians throughout the world. To minimize the spread of the virus, the government quickly imposed restrictions at national transit hubs and imposed harsh measures such as a total enforced social separation and a nationwide lockdown. As a consequence, there are many obstacles, travel limitations, and challenges in purchasing basic items and receiving other critical services (such as transportation, health care, and so on) around the nation.

The spread of disinformation and rumors on social media, as a consequence of this bias doctors, as well as violence and

unfavorable treatment cases against them, aggravates the problem. Physicians' mental health is being harmed by anxieties about the supply of PPEs, the course of the epidemic, and exclusion/quarantine. To ease their worry, the public and physicians should actively seek out more motivating and morale-boosting initiatives. The government should act quickly and bear full responsibility for any mistakes made by physicians and their families as a result of COVID-19. In several places, local governments have proclaimed cash incentives and expedited monthly pay for doctors. All of this boosts physician morale, and the government should not be overlooked.

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