

# ASSESSING THE MENTAL STRESS OF HEALTHCARE WORKERS DURING THE COVID-19 PANDEMIC: A COMPARATIVE STUDY

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## Abstract

The COVID-19 pandemic has placed significant psychological burdens on healthcare workers, leading to increased mental stress and burnout. This research paper aims to assess the mental stress experienced by healthcare workers during the pandemic and compare it across different healthcare settings and professional roles. The study will employ a cross-sectional design, targeting healthcare workers from various healthcare settings, including hospitals, clinics, and long-term care facilities. A standardized questionnaire, such as the Perceived Stress Scale (PSS), will be used to assess the levels of mental stress among participants. The survey will also collect demographic information, work-related factors, such as work hours and direct patient contact, and coping strategies employed by healthcare workers to mitigate stress. Data analysis will involve descriptive statistics to determine the overall levels of mental stress. Furthermore, the stress levels will be compared across different healthcare settings and professional roles using appropriate statistical tests. The findings will provide insights into the mental stress experienced by healthcare workers during the pandemic and shed light on the factors contributing to heightened stress levels. This information can be utilized to develop targeted interventions, support systems, and mental health programs to address the mental well-being of healthcare workers.

**Keywords:** Mental Stress, Healthcare Workers, Pandemic, Comparative Study, COVID-19.

## INTRODUCTION

Pandemic alludes to the sicknesses that reach out over enormous geographic regions—for instance, the fourteenth century plague (the Black Death), cholera, flu, and human immunodeficiency infection (HIV)/AIDS. In a new survey of the historical backdrop of pandemic flu, pandemics were sorted as trans-regional (2 neighboring areas of the world), interregional (2 nonadjacent districts), and worldwide. In the seventeenth and eighteenth hundreds of years, the terms plague and pandemic were utilized ambiguously and regularly conversely in different social and clinical settings. The previously known utilization of the word pandemic, in 1666, alluded to "a Pandemick, or Endemick, or rather a Vernacular Disease (*a disease always reigning in a Country*)". By the mid nineteenth century, the term epidemic, when utilized as a noun, had become the acknowledged term for what we would call today both an epidemic and a pandemic, with the term pandemic falling into expanding obsolescence.

Coronavirus has enveloped the world with its deadly effect and since it has surfaced, ere is nothing but fatal consequences. It is a deadly virus that possesses single-stranded RNA as the genetic material and typically indicates a Zoonotic nature- a phenomenon that mainly causes symptoms varied from that of a common cold and can be extended to severe pulmonary infection, enteric, hepatic as well as a neurological syndrome (Aly et al., 2021). Apart from the emergence of SAR COV-2 (the viral strain) in recent times, there are other strains of corona viruses that have been recognized by humans. It includes HCOV-229E, SARS COV, HCOVNL-63 and MERS COV (Aly et al., 2021). The recent resurface of SAR COV-2 strain in 2019 was primarily reported with symptoms of idiopathic pneumonia among patients. However, further evidence suggested a link to the seafood market present in Wuhan, South China (Aly et al., 2021).

The novel Coronavirus 19 (COVID-19) began from Wuhan in China. From that point forward it has influenced the majority of the countries and mainland on account of its fast transmission. This infection was pronounced as a public health related crisis circumstance by the World Health Organization followed by affirmation of a pandemic situation in March, 2020 (Spoorthy, 2020). From then, more than 41 million affirmed instances of COVID-19 and 1.13million mortality have been accounted for around the world around October 21, 2020 (WHO, 2020).

In January 2020, the epic outbreak of coronavirus was declared by WHO that has left everyone single being on earth shaken. Since then, a wide increase in co-morbidities and numerous deaths has been observed. It was nothing but a nightmare for everyone. However, the healthcare professional has undergone a traumatic stage with the irresistible surge in coronavirus cases. In May 2020, an approximation of 5,800,000 cases was confirmed with this virus with more than 300,000 deaths globally.

This is quite a messy situation and took the world by a shock. Scientists across the globe regarded this situation to be extremely precarious for following reasons:

- a. Being exceptionally capricious and infectious.
- b. Clinical variations
- c. Novel epidemiological features
- d. Incredibly unfavorable effect on general wellbeing.
- e. Uniqueness and absence of diagnostic support

According to The UN Department of Economic and Social Affairs (UN DESA), (UNDP, 2020) The COVID-19 episode influences all sections of the populace and is especially hindering to individuals from the gatherings of people in the most vulnerable circumstances, keeps on affecting public health, incorporating individuals living in destitution circumstances, people with disabilities, youth, and native people groups.

Apart from the outnumbered cases of infection and deaths, the pandemic has instigated certain ranges of psychological issues, mainly, fear, insomnia, anxiety, depression, and

frustration and put a direct impact on people ranging from less severe to fatal conditions patients for the care workers. After a few days of the outbreak, mass quarantine was declared which caused hysteric sense, fear & anxiety among the healthcare workers (HCW) present in the healthcare unit and in the isolation unit (Aly et al., 2021). Medical workers who have been exposed to the pandemic cases directly are considered to be frontline workers. However, the most concerning factor is the workload and mental stress, higher chances of infection and vice versa.

A large number of medical care suppliers all throughout the globe are working vigorously on the front edges of the COVID-19 emergency. They are being relied upon to really focus on contaminated patients, to work outside their typical fortes, and to settle on troublesome choices about understanding patient consideration. Many are risking their wellbeing and their lives are in danger to battle this pandemic (Gruben& Czarnowski, 2020). Italy has been severely affected and quite in danger – in excess of 8,300 medical care suppliers have been contaminated by COVID-19 (Lidia Sirna et al., 2020), other European countries are also in the same line.

Medical services workers often experience the stress of work-related or professional pressure. Frequently this is because healthcare staff has exclusive expectations and they might not have sufficient opportunity, abilities and social help at work. This can prompt extreme anguish, burnout or actual sickness. Eventually, medical care laborers might not be able to give excellent medical services administrations. Stress and burnout can likewise be exorbitant on the grounds that influenced medical services laborers take debilitated leave and may even change occupations (Ruotsalainen et al., 2014).

The unexpected pandemic has made the situation very difficult for the healthcare system also to face the challenge around the world (Shrestha et al., 2020). Since the start of the Covid 2019 pandemic, medical care workers have shown a momentous flexibility and expert devotion notwithstanding a dread of getting contaminated and tainting others (Liu et al., 2020). But on many occasions, it has been seen that the pandemic is causing stress towards healthcare frameworks around the world (EP News Bureau, 2020).

## **OBJEACTIVES**

1. To determine the mental and psychological impacts of Covid-19 on healthcare workers
2. To determine the segment of workers -front line or non-front line or both to face the mental health risk at most

According to WHO, emotional disturbances comprise one of the primary reasons of inability all throughout the world. Stress is a cycle wherein outer or ecological requests surpass the variation capacity of any organism which results in organic alongside mental changes which may put those individuals in danger of infection. Anxiety can be characterized as "a physiological and mental state which is described by different substantial, psychological, behavioral, just as the emotional parts." All of these segments

when consolidated together may prompt the production of a disagreeable inclination which has been related with dread, stress, and sensation of uneasiness.

Stress has a mental effect that can show as fractiousness or hostility, a sensation of loss of control, sleep deprivation, weariness or fatigue, trouble or tears, fixation or memory issues, or more. Continuing with stress can prompt different issues, like despair, nervousness or burnout. Stress influences psychological wellness, also in addition physical wellbeing as well. For instance, it can cause an expanded pulse and a higher danger of coronary illness, gastrointestinal issues (loose bowels, indigestion, stomach ulcers, and so on), migraines, and back or neck torment. It can likewise prompt undesirable practices and addictions. There are many stress factors in our day to day life, whether it is related with any personal reason, professional reason, financial reason or social reason. As per World Health Organization, the number of individuals with mental stress was assessed to surpass 300 million worldwide (WHO, 2017).

The surge of Covid-19 pandemic has induced unprecedented effects on Healthcare workers, especially the frontline workers who have been exposed to the cases for a longer period of time. A distorted image of a life and death case is anything but soothing even though a professional is trying heart and soul to handle the situation. The major concern is the increasing infection rate happened to be observed on a daily basis since the outbreak. Although it is well aware that mental stress and psychological effect are common for health professionals, the effect has been severe during this pandemic situation and most professionals often ignore routine checkups for their mental health.

Covid 2019 is highly spreading everywhere in the world, causing psychological issues for the vast majority of human beings. The clinical staff is likewise under extensive mental pressing factors (Vizheh et al., 2020). This study is planned to survey on the factors that are causing mental stress among healthcare workers and the possible consequences that can affect the universal healthcare system. This survey expects to give an outline of the examination discoveries on psychological issues experienced by HCW because of COVID-19. The concept is to distinguish the connection between socio-segment, mental and COVID-19 related factors and changes of mental conditions of HCW.

The rise in Covid-19 cases shows a major dilemma in healthcare practices due to the unprecedented impact that has been heightened on health-care services. Due to the rise in unparalleled crisis, doctors and other medical workers faced several challenges while treating patients in this situation. Psychological burden & overall health awareness for healthcare workers is a real concern and hence research continues to enlighten the high chances of burnout, mental health stress & suicide (Gupta et al., 2021). Detrimental factors include infection and mortality rate, poor economic condition and stress concerning certain known and unknown areas and uncertainty.

Although being the healthcare workers are handling the critical situation efficiently, the HCW themselves are not safe from mental trauma because of COVID-19. Among the medical workers like doctors, nurses, ward boys who are directly in charge of taking care

of these patients, are at more serious danger than others (Cai et al., 2020). They are the one who come directly in proximity of the patients who are suffering from contagious diseases. It has been seen in many cases that while treating patients, healthcare workers themselves catch the infection and fall sick. In this context (Rana et al., 2020) assessed the unexpected inversion of act from HCW to a patient may prompt dissatisfaction, vulnerability, alteration issues, social stigma, and apprehension of segregation in the clinical staff. In spite of the low death pace of 2 %, the COVID-19 infection has a high contagion rate and the mortality is higher than that brought about by SARS and MERS consolidated (Mahase, 2020). In other cases, unfavorable mental health results are caused by unnecessary responsibility/work hours, insufficient personal protective equipment, over-excited media news, feeling unsupported by own family members and boycotted by society (Lee et al., 2018).

Most consistently influenced are the medical care experts who are working as front liners. They experience the ill effects of serious mental results which might be ascribed to very long working hours, hefty responsibility, and lacking inventory of individual protective gear (PPE) supplies, over-detailing by ever curious various news channels and online media, and high pace of disease among the working staff (Spoorthy, 2020). Consistent expanding of infected cases, an ascent in the pace of mortality, absence of a particular medication or immunization, broad media inclusion, enormous responsibility, absence of individual defensive gear, and sensations of deficient help all can add to the psychological pressure of these medical care staff (Lai et al., 2020).

In these circumstances, it is required for healthcare workers to work extended periods while they are under an overpowering pressing factor. They are at the danger of being contaminated while treating sick patients. Reports showed that few healthcare workers got contaminated with SARS-CoV-2 when they were in close contact with tainted patients (Xiao et al., 2020). In the underlying period of the SARS-CoV-2 episode, 29% of all hospitalized patients were HCWs (Zhu et al., 2020). Working in these circumstances fosters the danger of different mental and dysfunctional behaviors just as physical and sentimental anguish among healthcare workers (Lai et al., 2020). In their efficient survey, Shaukat et al. (2020) noted normal indications like cough (70%), pyrexia (85%), alongside weakness (70%). More significant levels of depression, anxiety, stress, dread, outrage, and a sleeping disorder were seen among medical care staff (Shaukat et al., 2020).

A bunch of research studies conducted on other contagious diseases, like Severe Acute Respiratory Disorder (SARS), the Middle East Respiratory Syndrome (MERS) and the Ebola infection, uncovered that an extensive number of healthcare workers experience the ill effects of critical psychological trouble during the time of epidemic or pandemic (Lee et al., 2018). An investigation by surveying 1257 wellbeing laborers treated SARS-contaminated patients tracked down that given the quick spread of disease in the beginning phase of the pandemic, feeling of vulnerability, the danger to life, and critical weakness described by physical and coherent indications of psychological apprehension were common (Chong et al., 2004). After when the situation got better there were

indications, including anxiety, uneasiness, depression, awful work pressure, evasion, and burnout were seen among healthcare workers (Lee et al., 2018).

## CONCLUSION

The survey will also collect demographic information, work-related factors, such as work hours and direct patient contact, and coping strategies employed by healthcare workers to mitigate stress. Data analysis will involve descriptive statistics to determine the overall levels of mental stress. Furthermore, the stress levels will be compared across different healthcare settings and professional roles using appropriate statistical tests. The findings will provide insights into the mental stress experienced by healthcare workers during the pandemic and shed light on the factors contributing to heightened stress levels. This information can be utilized to develop targeted interventions, support systems, and mental health programs to address the mental well-being of healthcare workers.

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