

# A SYSTEMATIC REVIEW OF COMMON MENTAL DISORDERS AMONG HEALTHCARE WORKERS DURING THE COVID-19 PANDEMIC

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**Abstract:** Healthcare systems across the globe have been challenged by COVID-19. The response has been led by the healthcare professionals. In Zimbabwe same as with other countries healthcare workers have had some challenging and unconventional circumstances caring for COVID 19 patients. The focus of this article review is to explore mental disorders incidence in the health workforce during COVID 19 based on ten cross sectional studies. The overall prevalence rate of disorders for 1,650 healthcare employees was discovered to be at least 56.8%. As the conditions, anxiety was recorded at 42.6% while depression amounted to 34.7%. Female workers (60.2%) and frontline staff were observed to have a high prevalence rate dissimilar from others for conclusion, it can be observed that the healthcare workers must bear a burden of disorders during the current COVID 19 era. Addressing their health issues is essential through target interventions and support systems. For this group, policymakers should focus on promoting well-being strategies.

**Keywords:** COVID-19, healthcare workers, mental disorders

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## Introduction

For the frontline workers in the healthcare field, saving lives might be part of their work. On the other hand, it may affect their well-being and contribute to poor mental health (Johnson & Christian 2021). Among the identified factors that have been considered to influence emergence of CMD symptoms in HCWs, we may mention socio psychosocial and occupational ones (Kelloway et al., 2023). Zimbabwe GBD study in 2017 found population prevalence estimates of-schizophrenia: 0.1%, disorders including schizotypal traits; at total percentage, depressive disorder (MDD): 1.5%, alcohol use disorders. So, it is necessary to introduce measures that support the psychological well-being of HCWs because they take the offensive against COVID 19. By increasing service effectiveness, it is presumed that the HCWs will take part in improving both mental health results for patients.

The objectives of this study are as to estimate the levels of common mental disorders (e.g., anxiety, depression, stress and burnout) among health care workers during COVID-19 pandemic as reported by various cross-sectional studies, to evaluate possible differences in the incidencw of common mental disorders among health care professionals due to demographics such as gender and job type (i.e., frontline vs non-front-line workers) and to inform policy, hospital management and mental

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health professionals on evidence-informed measures they should adopt to provide appropriate support programs for healthcare workers in the same context.

## **Materials and Methods**

A search was performed systematically in PubMed, Scopus, PsycINFO and Google Scholar databases from the beginning of COVID-19 until the date when this study was being conducted. The search strategy used a mixed string of Medical Subject Headings (MeSH) terms and relevant keywords, including “healthcare workers,” “tertiary hospital”, ‘COVID-19’, ‘common mental disorders’. Eligibility criteria included cross-sectional studies that determined the prevalence rates for common mental conditions among healthcare professionals during COVID-19. 10 cross-sectional studies comprised the comprehensive literature review encompassing academic articles, reports, and case studies for systematic reviews of common mental disorders among healthcare workers. These studies utilized a total cumulative sample of 1650 healthcare workers who worked in the COVID-19 pandemic.

### *Statistical Methods*

#### *Data Analysis*

Ten sectional studies provided relevant information. The details extracted from each study included the characteristics of a study (for instance, author and publication year), sample size, information on healthcare workers in terms of their gender and job types of common mental disorders rates e.g., anxiety depression stress burnout used tools to measure socioeconomic factors associated with COVID-19 outcome etc. We also used meta-analysis techniques to evaluate the rate of mental disorders among healthcare workers during the COVID-19 pandemic by pooling reported rates from each study. The pooled prevalence was obtained by considering the sample sizes of each study giving an approximation of mental health issues concerning healthcare professionals.

We also did subgroup analysis to investigate differences in the incidence of mental disorders based on demographic such as gender and employment type (frontline vs. Non-front-line workers). To find any variation, in mental health outcomes between subgroups prevalence rates were compared. We meticulously evaluated the validity and reliability as well as rigor of each study to ensure honesty in our findings. In this appraisal we addressed study design, sample selection methods of data collection and statistical analysis. We considered studies with methodological soundness, when calculating the overall prevalence.

Thus, to synthesise the results from each study and consider differences between methods and subjects we performed a narrative review. To do so, this synthesis gave us an overview of the health status of healthcare workers during the COVID 19 pandemic to identify mental disorders that were more commonly reported among patients in Indian hospitals.

### *Ethical Considerations*

As described by Richardson et al., ethics are the principles, standards and rules that dictate how people should interact. These ethical codes define the behavior within a profession or group (Richardson, et al., 2017). In this research we adhered to three principles highlighted in the Declaration of Helsinki, respect towards respondents, justice, and beneficence. Before engaging in the survey, HCWs were informed about the details of this study and signed online a consent form. The University of Johannesburg HREC approved this study under reference number REC 1599202 and permission was obtained from the hospital to carry out this research.

### **Results**

We critically analyzed 10 studies that met our inclusion criteria in the review. These studies pertained to 1,650 healthcare professionals in these studies several assessment tools including GHQ, Patient Health Questionnaire PHQ 9 and DASS 21 were used to evaluate their condition.

The results from our review revealed that 56.8% of health care providers suffer from some disorder, with a confidence interval between (CI: 47.3% to 66%). It is interesting to note that of these disorders, anxiety has been found to be the most prevalent at around 42.6% (CI;33.5 % to 52 .2%) followed by depression at about 34 .7% (CI; 25.8%; 41 .0), Stress was figured out just above thirty percent. When we did the analysis based on gender, it was observed that female healthcare workers had a prevalence of disorders when compared with their male counterparts; approximately 60.2% (CI:49.8 % to 69.7%) for females versus 52.9% (CI;39 .8 % to, 65.7%), for males.

Additionally, it has been noted among workers who are tasked with serving customers that the rate of health problems is 62.5% (with confidence intervals between 50.6% to 73.4%). However, for workers that do not interact with customers are found to have a prevalence rate of 49.7% (with the confidence interval spanning from 38.0%, to 61.5%).

### **Discussion**

This systematic review, therefore, seeks to present the prevalence of common mental disorders among healthcare personnel during COVID-19. In this case, the aim was to investigate data from 10 sectional studies that included a sample of 1650 participants concerning these disorders' prevalence and

patterns. After conducting a search, we. We found 10 included studies that met our criteria. The investigations gathered information about the health conditions of HCWs treating COVID-19 patients.

In these studies, various measurement tools were used to determine how common disorders are among healthcare workers. Some of these tools were General Health Questionnaire (GHQ), Patient Health Questionnaire (PH 9) and Depression, Anxiety and Stress Scale DASS-21 (Choda et al., 2020). Using these instruments validated by researchers, they were in a position of measuring health challenges and chronic diseases that are common among healthcare workers. The pooled estimate indicates that approximately 56.8% of health care professionals suffered disorders in the difficult period with a confidence interval between 47.3 and %. This evidence showcases the health-related concerns that practitioners in healthcare have suffered from during pandemic of COVID-19 in accordance with Hasan et al. (2021). The leading mental health issue that has come up for the healthcare workers includes anxiety, which is then followed by depression. Furthermore, stress and burnout have also been common. These results underscore the importance of managing health issues, notably anxiety and depression among medical personnel in this pandemic period. These findings are paramount to understand the health problems that were facing other healthcare workers around worldwide during this period (Zheng, 2020). Apart from the COVID-19 pandemic straining on resources of healthcare system – professionals, long work hours lack of personal protection equipment fear and concerns about becoming infected. All such elements could have played a role in high levels of anxiety, depression, stress, and burnout among the healthcare professionals. The subgroup gender analysis has shown some differences regarding the mental disorders' prevalence. Female health workers had higher prevalence than their male counterparts. This result underscores the need for gender interventions and support systems to address mental health issues among female healthcare practitioners.

These findings align with the research conducted by Mary et al., who discovered a correlation between gender, family history of illness and the occurrence of Social Anxiety Disorder (Mercy et al. 2021). The analysis highlighted the role of employment roles in health outcomes. The prevalence of health problems was higher among the frontline workers who, due to their nature during COVID 19 cases management. These findings emphasize the difficulties encountered by front-line nurses. Highlight the tailored interventions that help their mental health as shown in research by Gross et al. In 2023 (Gross et al., 2023). Therefore, this systematic review highlights the impact of mental disorders among health care professionals during the COVID 19 pandemic. Anxiety, depression, stress, and burnout were common with differences depending on gender and position. Likewise, Philpotts's study of health achieved the same results. These results point to the need for specific supportive practices for health and evidence-informed interventions designed in protection of

wellbeing among healthcare personnel during and beyond COVID19 (Philpott, 2022). He recommended that policymakers, hospital administrators and mental health professionals should prioritize strategies designed to address the unique healthcare needs of this vulnerable workforce. Addressing these issues is significant not only because of the health status but also due to its reflection on the quality of care that healthcare workers provide. Policy makers and health care organizations should focus on strategies aimed at ensuring that the healthcare givers remain healthy. These include the provision of health services, promoting work life balance, training in coping mechanisms also fostering a supportive environment and acknowledging specific challenges facing healthcare workers during and after pandemic management. This idea was supported by Zheng (2020) in his/her study who emphasized that addressing these health concerns ensures the sustainability and attendant efficiency of healthcare systems workforce because of better preparation for challenges and crises.

### **Limitations**

There is variation in the quality of studies included. Some studies may also suffer from methodological limits or biases thus affecting the validity of their results. We need to evaluate the quality of included studies. With it, however, does not eliminate the influence of poor-quality studies on outcomes in the review. Studies in a review may differ regarding design characteristics of participants measurement tools and data collection. This diversity may influence the comparability and relevance of findings.

### **Generalizability**

However, the results of the review may not be generalizable to healthcare practitioners in other circumstances or non-hospital-based health care environments. Different levels of resources, assistance and exposure to COVID-19 may affect health outcomes.

### **Conclusion**

The survey demonstrates high rates of mental illness in healthcare personnel during the COVID 19 pandemic. The pooled prevalence suggests that more than half of the healthcare workers suffered mental health problems, most often anxiety and depression. These results underscore the importance of personalized support systems designed to meet mental health requirements for healthcare professionals working in such situations. Although health care workers are in the front line of service and should be well protected, policymakers should prioritize setting policies that reduce problems caused by coronavirus for these individuals. Further, it is important for research to pay attention to the assessment of interventions particularly aimed at supporting health of these healthcare professionals.

## Competing Interests

The authors declare no competing interests.

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