

An Analytical study on Psychological wellbeing of Health care workers working at Tertiary care hospital During Covid 19 Pandemic

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Abstract

Covid 19 arrived with a boom and quickly settled, causing havoc in people's lives and economies all around the world. Organizations have attempted to adapt to this new normal in their own distinctive ways. Surviving in these unprecedented times, developing new treatments, staying in hospitals, and transitioning to new atmosphere that have gained importance in the current Covid-climate have all of a sudden become top priorities for healthcare institutes, while the psychological well-being of health workers has been overlooked.

The research focuses on health care workers psychological well-being amid the Covid 19 epidemic. To build a model of healthcare worker psychological health and to identify mitigation techniques, the research article conducted theme analysis based on a literature review. Health care staff from a tertiary institution in Jaipur, Rajasthan, India who were caring for COVID-19 patients were invited to engage in a self-administered questionnaire from May 12 to August 13, 2021. The 'Scale of Psychological Well-being' was used to measure employee well-being (Modified 18-item Scale). The responses were gathered using a 7-point Likert scale. Items with a positive meaning were flipped to produce a more accurate rating of happiness. The average of all evaluations for each individual responder indicated their level of well-being.

The article investigates health care workers psychological well-being by examining psychological responses, coping methods, and mitigation–strategies in middle of 2021.

Keywords: psychological well-being; psychological health; work pressure; anxiousness; Covid19.

INTRODUCTION

People have been affected in several ways by the continuing COVID-19 epidemic. It is accompanied by a variety of illness and death trajectories that have long-term effects on public health, as well as psychosocial ramifications all over the world [1]. The increased number of

COVID-19 cases has put a strain on healthcare systems, which have been overburdened and harmed in many cases[2]. Healthcare workers (HCWs) all over the world have seen an increase in the volume and intensity of their job, as well as extra duties, and have had to adapt to new protocols and adjust to the "new normal" [3]. This pandemic has been overshadowed by

uncertainty and high transmission rates, both of which have posed significant challenges to HCWs. One side, they must fulfil their commitment to assist mankind, while on the other, they are terrified of contracting an illness while providing treatment. HCWs have experienced psychological suffering as a result of this paradox, including sadness, anxiety, and sleep disturbance [4]. The World Health Organization (WHO) has acknowledged and underlined the need for efforts to address the impact of HCWs on physical and mental health [5]. Additionally, with instances of verbal and physical abuse widely publicized on social and print media channels, this epidemic has brought to light a variety of expressions of stigma that HCWs suffer. In India, physicians and nurses have been forced to leave their offices, and there have been instances of physical violence against health-care workers in several regions of the country [6,7]. During the COVID-19 epidemic, people all throughout the world have experienced similar feelings of stigma and discrimination [8]. HCWs have been found to suffer stress, anxiety, depression, and sleep-related difficulties in recent studies [9,10]. However, there is a paucity of qualitative research on COVID-19's psychological impact on HCWs in India. In light of this, the purpose of this study was to acquire a better understanding of the psychosocial issues that HCWs encounter in their employment, family connections, personal well-being, and experiences of stigma at various levels. The ultimate goal of this study was to promote need-based intervention options for HCWs in order to enhance their mental health, which would lead to a stronger health system that provided patient-centered quality treatment.

Materials & Methods

This research was a single center study that looked at the psychological experiences of HCWs working on the COVID-19 epidemic at NIMS Hospital, Jaipur, Rajasthan, India. The research took place between May and August 2021, and it used a mixed-methods approach that comprised both quantitative and qualitative research. The NIMS University Ethics Committee (IEC/NIMS/RP/0245/14/4/2021) granted ethical approval.

The study's sample size was calculated using a cross-sectional design, assuming a 60% prevalence of psychological distress, 20% noncompliance, an alpha error of 5%, and a relative accuracy of 15%. Quantitative data were obtained from 227 individuals. HCWs who provided COVID-19 care services such as assessment, screening, treatment, quarantine, referral services, and community outreach were eligible to participate in the research. Doctors, nurses, pharmacists, ambulance personnel, community health workers, housekeeping staff, security staff, stretcher bearers, garbage collectors, lab technicians, and hospital attendants were among those who were affected. Experienced Researchers help taken in conducting qualitative interviews of screened study participants for eligibility and conducted interviews. This was done to guarantee that the pandemic, the population covered, and the length of the interviews were all considered while advising on safety and preventative measures.

The research investigators contacted each eligible participant individually after the final list of eligible individuals was generated following the screening process. A participant information sheet was used to describe the study's goal, and their willingness to participate in the study was secured by written consent. The investigators scheduled the HCWs' interviews around their schedules to ensure that the interview would not interfere with their job or family time.

Statistical Analysis

NVivo software was used to code and analyse transcribed interviews using a thematic approach (QSR International, UK). The study team used an inductive technique to identify the probable codes (themes) utilising the qualitative interview guide, which already contained discrete areas that needed to be explored as a foundation. After that, two researchers independently coded the transcripts, and descriptive content analysis was used to identify additional significant themes and sub-themes from the data without using a predetermined theoretical framework.

Results

The questionnaire contained the validated Depression, Anxiety, and Stress Scales (DASS-21) and the Impact of Events Scale–Revised (IES-R) instruments, in addition to information on demographic factors and medical history (Table 1). [11, 12]. "Medical" (physicians, nurses) and "nonmedical" individuals worked in health care (allied health professionals, pharmacists, Lab technicians, administrators, clerical staff, and maintenance workers). The prevalence of depression, stress, anxiety, and posttraumatic stress disorder (PTSD) among all health-care employees was the primary outcome (Table 2). The prevalence of depression, anxiety, stress, and PTSD, as well as mean DASS-21 and IES-R scores, were compared across medical and nonmedical health care employees as secondary outcomes. The study included 370 (94%) of the 400 invited health care employees; baseline characteristics are provided in Table 1. Fifty enrolled participants (12.5%) tested positive for anxiety, 68 (10.9%) for depression, 65 (8.6%) for stress, and 43 (9.7%) for clinical PTSD worry. After adjusting for age, sex, marital status, survey completion date, and the presence of comorbid conditions, nonmedical health care workers had a higher prevalence of anxiety than medical personnel (24.8 percent versus 14.8 percent; adjusted prevalence ratio, 1.56 [95 percent CI, 1.15 to 2.69]; $P = 0.01$). In addition, nonmedical health care professionals had higher mean DASS-21 anxiety and stress subscale scores, as well as higher IES-R total and subscale scores (Table 2).

Table-1 *Participant Characteristics at Base Line*

Characteristic	Overall (n = 370)	Nonmedical Health Care Personnel (n = 124)	Medical Health Care Personnel (n = 246)
Sex, n (%)			
Female	149 (31.7)	89 (68.4)	142 (68.2)
Male	221	55 (31.6)	

	(68.3)		104 (31.8)
Median age (IQR), y	34 (24–44)	33 (28–39)	30 (28–35)
Marital status, n (%)			
Single	118 (38.5)	83 (47.7)	145 (49.0)
Married	232 (62.5)	85 (48.9)	147 (49.7)
Divorced, separated, or widowed	10 (2.1)	6 (3.4)	4 (1.3)
Occupation, n (%)			
Physician	115 (28.7)	-	115 (45.6)
Nurse	131 (54.3)	-	141 (54.4)
Allied health care professional	45 (13.8)	65 (37.4)	-
Lab Technician	18 (2.1)	12 (5.7)	-
Clerical staff	20 (6.4)	20 (17.2)	-
Administrator	13 (7.0)	13 (19.0)	-
Maintenance worker	26 (7.7)	26 (20.7)	-
Medical history, n (%)			
Hypertension	28 (4.3)	16 (7.5)	11 (3.4)
Hyperlipidemia	23 (4.0)	15 (6.3)	14 (2.7)
Diabetes mellitus	12 (1.1)	3 (0.6)	8 (1.4)
Asthma	21	12(5.7)	16 (5.4)

	(5.5)		
Eczema	24 (7.4)	12 (5.7)	22 (8.4)
Migraine	46 (12.3)	28(15.5)	28 (10.5)
Cigarette smoking	34 (4.6)	18 (9.2)	6 (2.3)
Ischemic heart disease	4 (0.6)	5 (1.7)	1
Stroke	4 (0.6)	2 (0.6)	1
Preexisting psychiatric illness	0	0	0
Other comorbid conditions	32 (6.7)	14 (7.3)	26 (8.4)

TABLE2- Prevalence of Depression, Anxiety, Stress, and PTSD and Mean DASS-21 and IES-R Scores in Medical and Nonmedical Health Care Personnel (n=370)

Outcome	Nonmedical Health Care Personnel (n = 124)	Medical Health Care Personnel (n = 246)	Crude Prevalence Ratio (95% CI)	Adjusted Prevalence Ratio (95% CI)*
Prevalence, n (%)*				
Depression	22 (12.3)	28 (9.1)	1.26 (0.61 to 2.18)	1.42 (0.67 to 1.29)
Anxiety	46 (24.7)	22 (10.8)	1.41 (1.43 to 3.97)	1.65 (1.75 to 3.99)
Stress	36 (8.9)	29 (8.4)	1.08 (0.73 to 3.16)	1.41 (0.67 to 2.89)

PTSD	29 (10.9)	14 (5.7)	1.80 (1.02 to 3.46)	1.47 (0.81 to 2.04)
Mean (SD) DASS-21 and IES-R scores	Nonmedical Health Care Personnel (n = 124)	Medical Health Care Personnel (n = 246)	Crude Mean Difference (95% CI)	Adjusted Mean Difference (95% CI)*
DASS depression	4.24 (6.07)	3.54 (5.83)	0.80 (-0.47 to 1.97)	0.66 (-0.72 to 1.84)
DASS anxiety	4.57 (4.91)	3.45 (4.88)	1.53 (0.45 to 1.81)	1.84 (0.45 to 1.54)
DASS stress	8.10 (7.95)	4.82 (6.74)	3.29 (1.39 to 4.38)	3.15 (0.98 to 4.41)
Total IES-R	11.10 (12.02)	6.85 (9.24)	4.55 (1.85 to 6.34)	4.35 (1.54 to 5.86)
IES-R Intrusion	0.87 (0.71)	0.41 (0.69)	0.26 (0.17 to 0.25)	0.15 (0.04 to 0.25)
IES-R Avoidance	0.56 (0.53)	0.37 (0.46)	0.29 (0.20 to 0.38)	0.19 (0.08 to 0.29)
IES-R Hyperarousal	0.45 (0.55)	0.42 (0.50)	0.16 (0.08 to 0.31)	0.16 (0.06 to 0.31)

Discussion

However, health-care professionals' DASS-21 and IES-R ratings were lower than those found in prior illness outbreaks, such as severe acute

respiratory syndrome (SARS). During the Covid-19 pandemic in India, a recent research indicated that physicians and nurses had higher IES scores and a nearly 3-fold greater frequency of PTSD than those in our study [13]. Following Singapore's SARS experience, this might be ascribed to heightened mental readiness and strict infection control measures. Notably, even after controlling for possible confounders, nonmedical health care employees exhibited a greater incidence of anxiety. Our findings are congruent with those of a recent COVID-19 research, which found that frontline nurses had much less vicarious traumatization than non-frontline nurses and the broader public [14]. Reduced access to official psychological assistance, a lack of firsthand medical knowledge on the outbreak, and a lack of comprehensive training on personal protective equipment and infection control methods might all be contributing factors.

To assist health-care personnel while the epidemic progresses, key clinical and policy interventions are required. A vulnerable population sensitive to psychological disturbance was identified in our research. To guarantee awareness and adoption of infection control strategies, educational programs should target nonmedical health care personnel. Counseling services and the creation of support systems among coworkers are examples of psychological assistance.

Conclusion

Ultimately, our findings show that nonmedical health care workers are the most vulnerable to psychological trauma during the COVID-19 pandemic. Treatment modalities aimed at this susceptible population as early as possible may be helpful.

Limitations

To begin, data from self-reported surveys was not cross-checked against medical records. Second, the study did not consider socioeconomic status, which might be useful in determining the relationships between outcomes and customizing specific treatments. Finally, because the research was conducted early in the outbreak and exclusively in India, the findings

may not be generalizable. Once the immediate threat of COVID-19 has passed, follow-up studies may be useful in determining whether there has been any advancement or even a possible re-bound impact of psychiatric symptoms.

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