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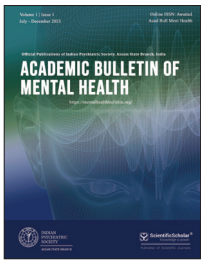

Original Article

Burnout in Healthcare Staff due to COVID Pandemic in a Tertiary Care Dedicated COVID Hospital

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ABSTRACT

Objectives: To evaluate the socio-demographic profile and burnout among frontline doctors, paramedical, and other supporting staff in dedicated tertiary COVID hospitals.

Materials and Methods: The samples taken were divided into three groups as follows: Doctors, paramedical staff, and other supporting staff working in a tertiary hospital dedicated to handling the COVID-19 pandemic at SKIMS-MCH Bemina Hospital.

Results: In this study, a total of 185 participants took part out of which 388 individuals were employed across the medical departments of this hospital. This was an overall response rate of 47.6%. Most participants were in the age group of 31–50 years (48.6%). Males comprised 53.5%, married 66.4%, living with family 82.7%, and as per job description, most responses were from paramedical staff (53.51%). On analysis of the mean ± SD score of burnout across individual socio-demographic variables predominant burnout was seen in paramedical staff (45 ± 5.2) followed by those living with family (42 ± 3.7), married (43 ± 1.2), and those older than 50 years (40 ± 3.9).

Conclusion: Our study showed that the high prevalence of burnout was among healthcare professionals in the tertiary hospital who were exposed to working and catering large population with serious healthcare and emergency issues caring for patients during the new pandemic. Factors such as female gender, living with family, and older age of healthcare professionals were associated with significant burnout. These findings can help to improve the preparedness for the future.

Keywords: Covid-19, Burnout, Tertiary Care, Occupational hazard, Healthcare workers

INTRODUCTION

The delivery of healthcare services is difficult and requires a lot of dedication, energy, and motivation. Healthcare professionals are more vulnerable to occupational or work-related stress. This is so because healthcare professionals must meet high standards and may lack resources such as social support and time at work. They might also be unable to offer top-notch medical care. Which may result in extreme anxiety, exhaustion, or physical illness.[1]

Work-related stress can lead to emotional exhaustion, lack of interest in work, and feelings such as being helpless, worthless trapped, and defeated.[2] Workplace burnout is a familiar term described as the feeling of extreme physical and emotional exhaustion that often affects business executives, industrial workers, medical staff, and first responders. Till now it was also known as workplace stress syndrome. However, the World Health Organization (WHO) recently updated its definition as follows, "syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed."[3,4] As per the International

Classification of Diseases diagnostic manual, it can be described as feelings of exhaustion, poor concentration on one's job with or without negative feelings toward career, and decreased productivity. It was seen that the rate of burnout was between 25% and 75% in some clinical specialties and is becoming an occupational hazard.[5] As per Maslach, burnout is a cumulative negative reaction to constant occupational stressors relating to the misfit between workers and their designated jobs.[6] Long working hours, poor patient outcomes, poor doctor–patient interactions, and interpersonal conflicts among coworkers are all linked to stress, depression, and burnout.[7]

The coronavirus disease 2019 (COVID-19) pandemic took the whole world with a surprise in the form of its rapid spread and very few measures to contain it. Health facilities were not well prepared for such a sudden surge of a novel virus, and the burden of the pandemic has tested an already tenuous infrastructure.[8] Healthcare workers continued to be at high-risk of exposure to the virus, a never-ending flow of patients and deaths, and long hours in sweat-drenched personal protection equipment kits that made even washroom breaks impossible, and this display of selfless devotion has even earned them the title of "frontline warrior." Stress, anxiety, and insomnia due to this pandemic were seen among a large number of India's 1.3 million doctors. Personal losses combined with the uncertain and distant seeming end of this pandemic lead to helplessness and frustration among the staff working in various health institutions that lead to burnout.

In this study, we evaluated the burnout among frontline doctors, paramedical, and other supporting staff working in a tertiary hospital dedicated for handling COVID-19 pandemic.

OBJECTIVES

To evaluate the socio-demographic profile and burnout among frontline doctors, paramedical, and other supporting staff in dedicated tertiary COVID hospitals.

MATERIALS AND METHODS

Study Place: SKIMS-MCH, Bemina Srinagar

Study Type: Cross-sectional observational study

Inclusion criteria

1. Healthcare workers dedicated for handling COVID-19 pandemic.

Exclusion criteria

1. Healthcare workers with comorbid psychiatric issues.
2. Not willing to participate in the study.
3. Employees not dealing with COVID-19 pandemic.

Sampling and procedure

Purposive sampling technique was adopted and all those who met the inclusion criteria were taken for the study. The sample was divided into three groups, which included doctors, paramedical staff, and other supporting staff working in a tertiary hospital dedicated for handling COVID-19 pandemic at SKIMS-MCH Bemina Hospital. The informed written consent was taken from each participant, and the aims and objectives of the study were explained to them. The socio-demographic proforma sheet which includes various social and demographic factors related to the study was collected followed by the burnout questionnaire, that is, Maslach Burnout Inventory.

Tools used

1. **Socio-demographic proforma**: Was used to measure the different social and demographic factors which are related to the study.
2. **Maslach Burnout Inventory (MBI)**: "MBI is a well-validated 22-item questionnaire for measuring burnout. It evaluates emotional exhaustion, depersonalization, and low personal accomplishment due to burnout. Based on the scores obtained, one can be regarded as having no signs of burnout (15–18), little sign of burnout (19–32), at risk of burnout (33–49), severe risk of burnout (50–59), and very severe risk of burnout (60–75). Psychometric properties of MBI have been well established across several studies involving different categories of professions."[9]

Statistical analysis

Descriptive and other relevant statistical analyses were carried out by SPSS software.

RESULTS

In this study, a total of 185 participants took part out of 388 individuals were employed across various medical departments of this hospital. There was an overall response rate of 47.6%. Most of the participants were in age group of 31–50 years (48.6%). Males comprised 53.5%, married 66.4%, living with family 82.7%, and as per job description, most responses were from paramedical staff (53.51%) [Table 1]. On calculating the burnout scores [Table 2], total score of participants was 58.2 ± 3.4, and maximum score was in Emotional Exhaustion Subscale Score (33.1 ± 5.0) and least in Personal Accomplishment Subscale Score (19.8 ± 7.7). On analysis of mean ± SD score of burnout across individual socio-demographic variables [Figure 1], predominant burnout was seen in paramedical staff (45 ± 5.2) followed by those living with family (42 ± 3.7), married (43 ± 1.2), and those older than 50 years (40 ± 3.9).

Table 1: Baseline characteristics of participants (*n=185*).

Variable	Value
Age, *n (%)*	
18–30	68 (36.75)
31–50	90 (48.64)
>50	27 (14.59)
Gender, *n (%)*	
Male	99 (53.51)
Female	86 (46.48)
Marital status, *n (%)*	
Married	123 (66.48)
Unmarried	57 (30.81)
Living status,*n (%)*	
Alone	32 (17.29)
With family	153 (82.70)
Job description, *n (%)*	
Doctor	45 (24.32)
Paramedical	99 (53.51)
Auxiliary staff	41 (22.16)

n: number

Table 2: Maslach burnout inventory score, mean ± SD.

Total burnout score	**58.2 ± 3.4**
Emotional Exhaustion Subscale Score	33.1 ± 5.0
Depersonalization Subscale Score	23.6 ± 4.2
Personal Accomplishment Subscale Score	19.8 ± 7.7

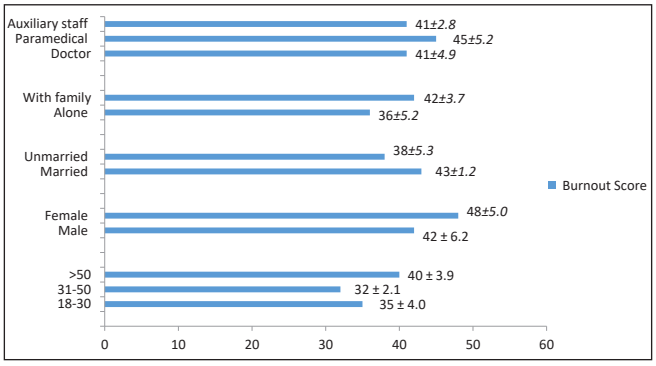

Figure 1: Bar graph showing burnout across individual Socio-demographic Variables mean ±SD

Table 3 shows the ANOVA results of burnout perception sublevels among professionals with statistical significance in emotional exhaustion component with P > 0.004*.

Table 3: ANOVA results of burnout perception sublevels among professionals.

Variable	Groups	n	x̄	sd	f	p
Emotional Exhaustion	Doctors	45	3.23	0.92	0.365	0.004*
	Paramedical	99	3.52	0.94		
	Auxiliary staff	41	3.17	0.97		
Depersonalization	Doctors	45	2.89	1.56	0.222	0.701
	Paramedical	98	2.51	1.53		
	Auxiliary staff	41	2.76	1.42		
Personal Accomplishment	Doctors	45	5.02	1.71	0.312	0.717
	Paramedical	98	5.81	1.69		
	Auxiliary staff	41	5.68	1.73		

**P>0.005*

DISCUSSION

This study aimed at finding out the burnout among healthcare providers in a tertiary hospital which was completely designed for COVID-19. The coronavirus disease pandemic introduced added psychosocial, emotional, physical, and logistical burdens to healthcare workers. Best quality care is expected from medical professionals for better patient care. There have been multiple studies done on burnout during various epidemics that had happened before the COVID pandemic. Most of these epidemics have not lasted such a long duration, and also the burnout in these studies was found to be ranging between 31 and 59.[10–12] In our study, the total burnout score was 58.2 ± 3.4, which signifies a severe risk of burnout that is similar to most of the studies on epidemics and COVID 19 pandemic. While as the scores in subscale of MBI in our study, it was seen that most of the healthcare workers had highest mean score in emotional exhaustion or the loss of drive to do work subgroup followed by depersonalization also known as compassion fatigue or the tendency to regard patients as objects. The scores are similar to study done by Li et al., but other studies found out that most of the healthcare workers had more scores in depersonalization sub-group.[13,14] This can be because this study was conducted in a tertiary hospital whose staff is already under work pressure that can lead to acceptance and less features of depersonalization. There was a significant correlation P > 0.004 between emotional exhaustion and health job profile on ANCOVA further supporting our result. There was a significant burnout found in female healthcare workers as compared to males. This finding is similar to other studies that have assessed burnout in other epidemics as well as in COVID-19 pandemic.[15] Those with age more than 50 had severe risk of burnout, and this can be supported by the evidence by Romani et al., who reported that with age there is gradual decrease in threshold for facing challenges. A few studies have also mentioned that burnout was more in young adults as well because of expectations from them.[1,2,11] Also, there was significant burnout seen in those who used to live with family during the duty hours, as it has been seen that the guilt and stress were associated with those healthcare workers who were living with family, particularly elderly and infants.

LIMITATIONS OF STUDY

Small sample size and focus on subspecialties need to be done.

Availability of data and materials

All data generated or analyzed during this study are available on request.

CONCLUSION

Our study highlighted that there was high prevalence of burnout among healthcare professionals in a tertiary care hospital. These healthcare professionals are catering to a large population with serious health and emergency issues during the pandemic. Factors such as female gender, living with family, and older age of healthcare professionals were associated with significant burnout. These findings can help to improve the preparedness for future.

Acknowledgments

The authors are thankful to the participants for their participation in this study.

Ethical approval

Ethical approval was obtained from institutional ethical committee, SKIMS Medical College Bemina, Srinagar.

Availability of data and materials

The datasets used during the current study are available from the corresponding author upon request.

Declaration of patients consent

The authors certify that they have obtained all appropriate patient consent.

Financial support and sponsorship

No funding source was used in this study.

Conflicts of interest

There are no Conflict of Interest

Use of Artificial Intelligence (AI)-Assisted Technology for manuscript preparation

The author(s) confirms that there was no use of Artificial Intelligence (AI)-Assisted Technology for assisting in the writing or editing of the manuscript and no images were manipulated using the AI.

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