BURNOUT AMONG HEALTHCARE WORKERS: A CROSS-SECTIONAL ANALYSIS OF DEMOGRAPHIC DETERMINANTS

A Cross-Sectional Analysis of Demographic Determinants

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Introduction

Burnout was officially recognized by the World Health Organization (WHO) in 2019 as a syndrome resulting from chronic workplace stress that has not been successfully managed. This recognition was included in the 11th Revision of the International Classification of Diseases (ICD-11), where burnout is described as an occupational phenomenon rather than a medical condition.

Healthcare workers play an important role in the functioning of health systems. The COVID-19 pandemic has demonstrated this on a global scale, as the primary cause of disruptions to essential health services has been the insufficient number of trained healthcare workers (WHO, 2020). Healthcare workers are also recognised as central to attaining, sustaining and accelerating progress towards Universal Health Coverage (UHC).

In India, healthcare professionals often work under resource-constrained settings with long hours, inadequate staffing, and high patient loads. A study by Kumar (2016) reported that more than 50% of Indian healthcare professionals experienced burnout symptoms.

Background and Objectives

The healthcare industry is among the most critical work environments. Employees in this industry are constantly exposed to a complex array of physical, psychological and safety hazards during their duties. Heavy lifting and standing for long periods, long working hours, shift work, extra administrative activities, and shortage of staff add to the stress of work.

Globally, healthcare professionals face unprecedented levels of stress and burnout. According to a systematic review published in The Lancet (2021), burnout prevalence among physicians' ranges from 25% to 60%.

A rapid global survey was done in 60 countries among HCWs during the COVID-19 pandemic and 51% were found to have suffered from burnout.

Studies done in Japan and Romania among doctors found that 43.6% and 76% had burnout.

A study conducted in Spain during the pandemic found that 41.1% of HCWs were emotionally exhausted.

Objective: To determine the relationship of burnout among healthcare workers using the Maslach Burnout Inventory (MBI).

Review of Literature

Authors	Study Location	Sample Size	Methodology	Salient Features
Obregon et al. (2020)	USA (University of Illinois College of Medicine)	273 medical students	Cross-sectional survey using MBI-SS	Examined how medical students experience burnout; it was discovered that those who felt burned out were more emotionally exhausted and cynical. Motivation and the phase of the curriculum were very important factors.
Williamson et al. (2018)	USA (9 Emergency Medicine Residency programs)	261 residents	Survey using MBI and 4 other well-being tools	There was a link found between MBI, work-life balance, and depression screen. Lab tested MBI against other tools that measure well-being.
Dhusia et al. (2019)	India (Mumbai public hospitals)	300 resident doctors	CBI-based questionnaire (manual/electronic)	The survey showed 56.66% of respondents had burnout. Higher rates of burnout involved personal and work stress than they did dealing with patients. Research shows that not having time off and being controlled by others are the main challenges for prisoners.
Saravanabavan et al. (2019)	India (South India ICU hospital)	204 ICU professionals	Survey using MBI-HSS, job satisfaction scale, and stress scale	80% of the participating healthcare workers experienced burnout, and nurses had the most cases. Job satisfaction seems to go down when someone experiences burnout.
Khasne et al. (2020)	India (COVID-19 hospitals)	2026 healthcare workers	Cross-sectional survey using CBI	44.6% reported personal burnout. Having frontline duties in the COVID-19 emergency increased the risk of burnout for nurses.

de Beer et al. (2020)	**7 countries (Europe & Japan)**	**10,138 employees**	**Cross-national survey using Burnout Assessment Tool (BAT)**	**BAT was approved for worldwide use; according to the study, there was more burnout in Japan than in Europe. The findings are reliable in different countries.**
Menon et al. (2022)	India (12 cities across 10 states)	2671 healthcare workers	Telephonic & online survey using Google Forms (CBI)	Nearly all health workers had periods of high stress and fatigue while dealing with the COVID-19 pandemic. All kinds of burnout: from personal and work to patient-related were examined. Outcomes depended on people's gender and their roles.
Sidiq et al. **(2024)**	India (Jaipur hospitals)	578 healthcare workers	Cross-sectional study using CBI via Google Forms	Around three quarters of the respondents had burnout. More nurses, men, and those with increased workloads were hit by the disease. The third wave is followed by analysis.
Dubale et al. (2019)	Sub-Saharan Africa (systematic review)	65 studies	Systematic review of quantitative burnout studies	Burnout is most common among nurses. Majority of my studies were done using MBI. Having a lot of responsibilities and not receiving support are the main reasons for teachers' stress.
Jalili et al. **(2021)**	Iran (6 hospitals)	624 healthcare workers	Cross-sectional survey using MBI	53% had high burnout. All aspects of burnout were related to someone's gender. Many people experienced higher emotional exhaustion because of COVID-19.

Research Gap

There has been a growing body of research on burnout among healthcare workers—especially after the COVID-19 pandemic—most of the existing studies have focused on very specific groups like doctors or nurses, or on one particular aspect of burnout such as emotional exhaustion.

Another major gap we noticed was that most Indian studies tend to ignore the wider team involved in healthcare—like technicians, administrative staff, or younger professionals—who also face significant work stress but are rarely studied.

Our study tries to fill this gap by including a broader and more diverse group of healthcare workers across roles and departments. We used the MBI, a globally accepted tool, and looked closely at how both personal and workplace-related factors contribute to burnout.

Observation

A striking 68% of participants reported high levels of burnout, it represents a substantial portion of our healthcare workforce grappling with emotional exhaustion, a sense of detachment, and a diminished feeling of personal accomplishment.

Our analysis further revealed clear associations between burnout and various demographic and occupational factors. Gender, marital status, specific job roles, departments, years of experience, and particularly, working hours, all showed a statistically significant link to burnout levels.

Burnout Category	Frequency (n)	Percentage (%)
High	136	68.00%
Moderate	54	27.00%
Low	10	5.00%
Total	200	100.00%

Frequency and percentage distribution in the burnout category

Methodology

Study Design

This study followed a cross-sectional, questionnaire-based design aimed at assessing the relationship of burnout among healthcare workers and exploring its association with selected demographic and occupational factors.

Study Setting and Population

The study was conducted in hospital and healthcare settings across India. The target population included a diverse group of healthcare professionals such as doctors, nurses, technicians, and administrative staff.

Sample Size :200

Inclusion Criteria:

Healthcare workers with a minimum of 6 months of professional experience.

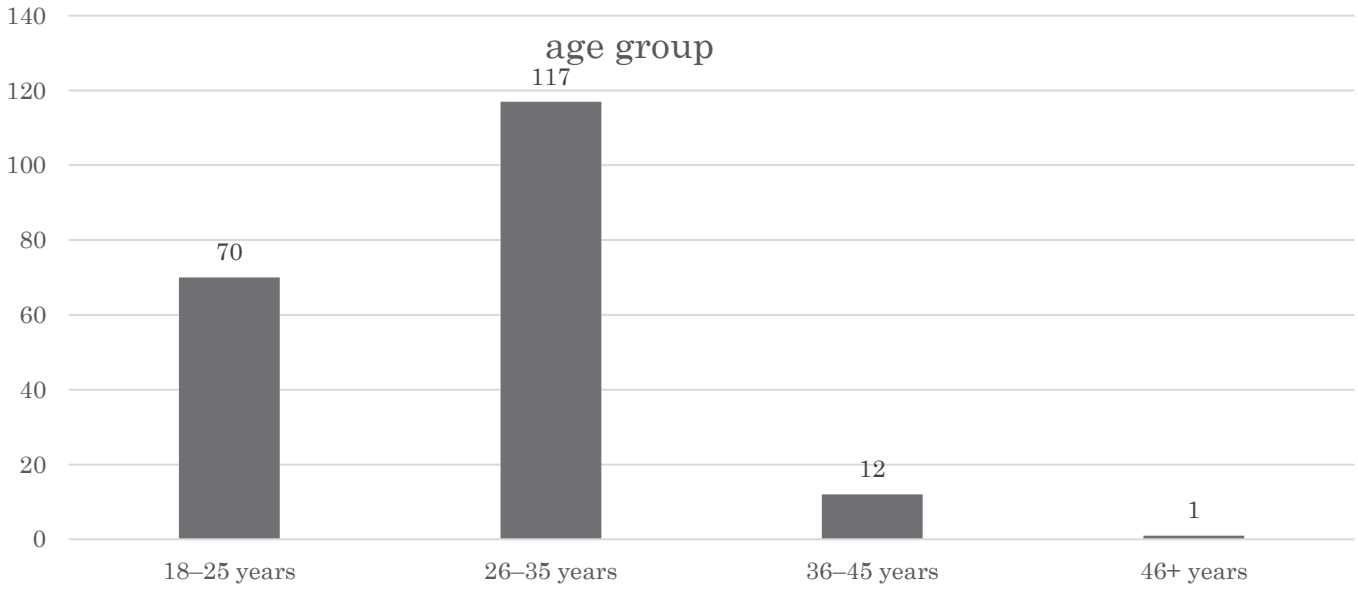
Willingness to provide informed consent.

Exclusion Criteria:

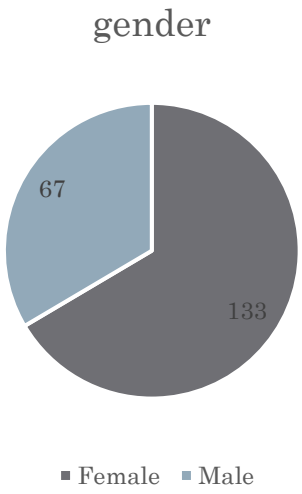
Interns, trainees, or temporary staff.

Individuals are currently receiving psychiatric treatment for stress or burnout.

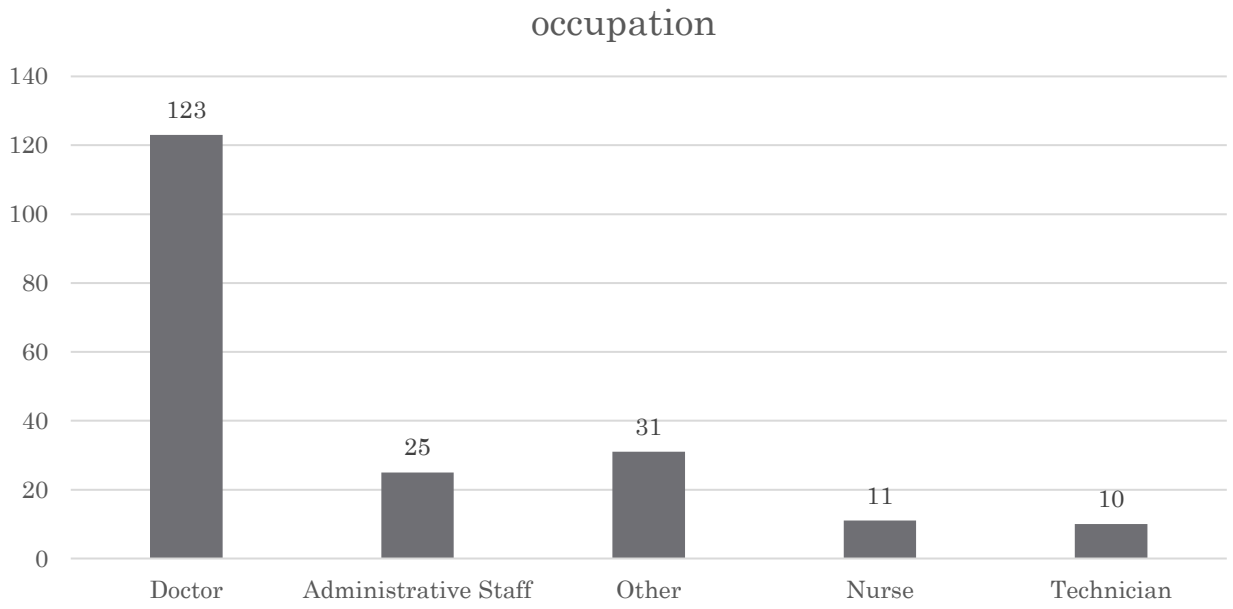
- **Study Instrument**
- Maslach Burnout Inventory (MBI): It is a standardized and validated tool used to assess burnout. The MBI measures three key dimensions: - Emotional Exhaustion - Depersonalization - Reduced Personal Accomplishment
- Participants' responses were recorded on a scale of 0-6, and dimension scores were categorized into low, moderate, and high burnout levels as per recommended scoring guidelines.
- **Data Collection Procedure**
- The study was conducted from March 2025 to May 2025. The survey was hosted on the web-based application, Google Forms. Data were collected anonymously over a period of four 8weeks, and confidentiality was assured throughout the process. A convenience Sampling was done.
- **Data Analysis**
- Data were compiled in Microsoft Excel and analyzed using SPSS Version 26. - Descriptive Statistics were used to summarize demographic variables and burnout scores (frequencies, percentages,)- Burnout scores were categorized into low, moderate, and high levels based on total subscale scores. - Chi-square tests were used to determine associations between burnout levels (dependent variable) and independent demographic/occupational factors such as age, gender, designation, and experience. – A p-value of less than 0.05 was considered statistically significant.



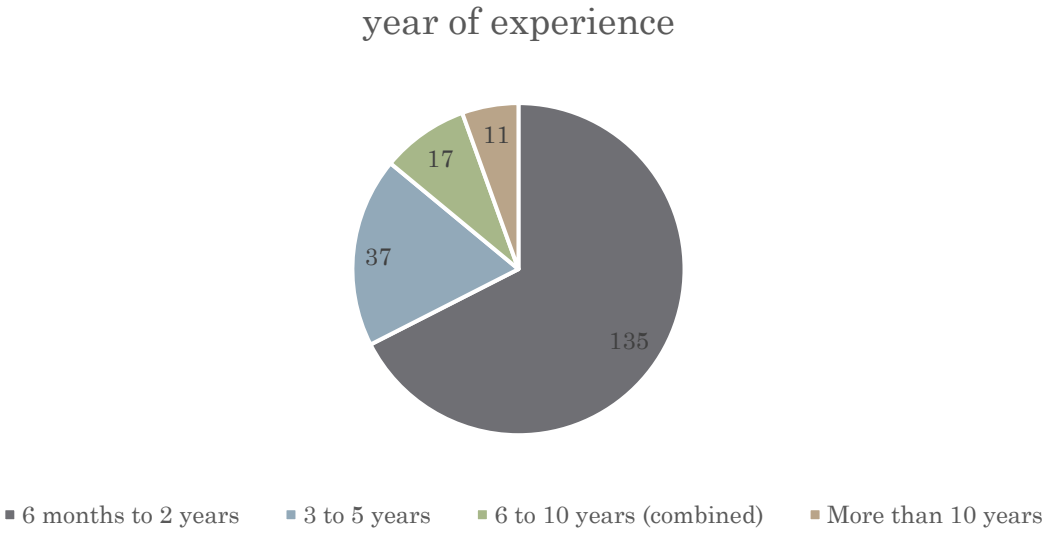
Distribution of Respondent's Age group



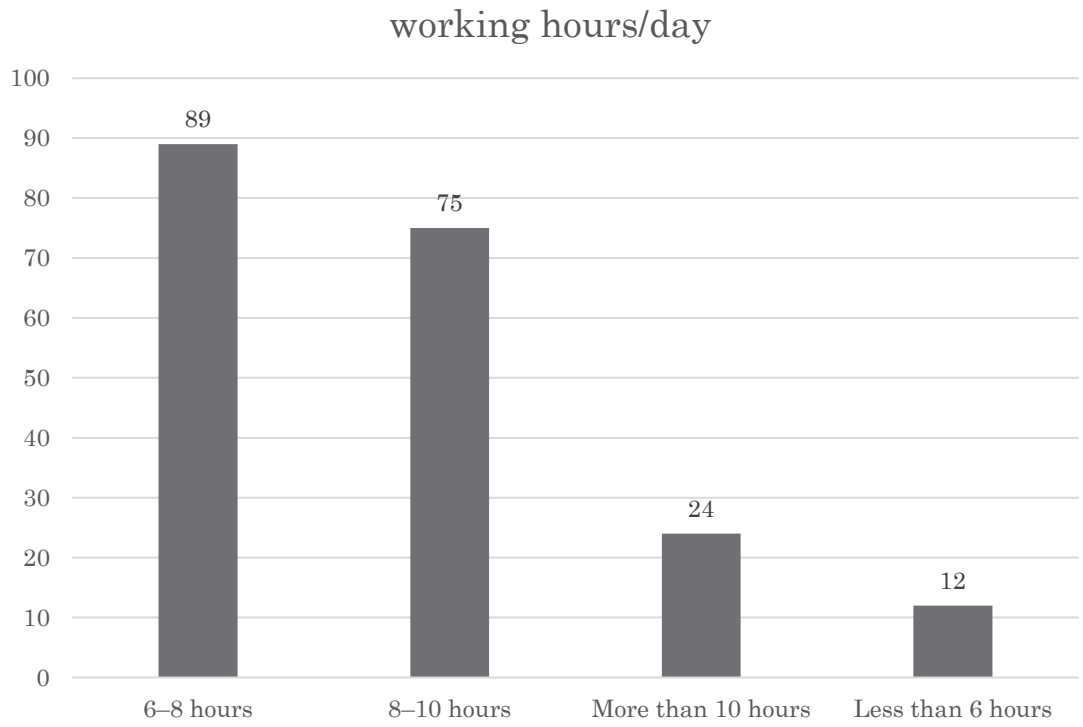
Respondent's Gender Distribution



Respondent's Occupation distribution



Respondent's years of experience



Respondent’s working hours/day

Results and Findings

Nearly 7 out of 10 professionals surveyed were found to be experiencing high levels of burnout, with emotional exhaustion and detachment from patients being the most common symptoms. Many admitted feeling drained by the end of the day, fatigued even before the day began, and emotionally disconnected—treating patients more like tasks than people.

The study also found that burnout is not experienced the same way by everyone. Women, single professionals, and those working longer hours or in clinical roles like dentistry and nursing were especially vulnerable .

Burnout Score (continuous variable categorized)

Burnout Category (Low, Moderate, High)

We have found all the variables to be significant with the Burnout category and Burnout score.(Age, gender, marital status, occupation, average no. of working hours, department, years of experience)

Variable	Dependent Variable	Pearson χ^2 Value	df	p-value (Asymp. Sig.)
AGE	SCORE	101.952	105	0.046
AGE	BURNCATEGORY	19.444	15	0.044
GENDER	SCORE	39.543	35	0.004
GENDER	BURNCATEGORY	4.812	5	0.009
MARITAL	SCORE	25.854	35	0.027
MARITAL	BURNCATEGORY	6.308	5	0.037
OCCUPATION	SCORE	201.796	140	0.001
OCCUPATION	BURNCATEGORY	63.587	20	0.001
DEPT	SCORE	294.976	245	0.016
DEPT	BURNCATEGORY	77.406	35	0.001
YEAREXPERIENCE	SCORE	110.07	140	0.041
YEAREXPERIENCE	BURNCATEGORY	10.014	20	0.038
WORKINGHOURS	SCORE	156.833	105	0.001
WORKINGHOURS	BURNCATEGORY	65.374	15	0.001

conclusion

- The present study confirms a strong presence of burnout among healthcare professionals, with 68% of participants experiencing high levels of burnout. The use of the Maslach Burnout Inventory (MBI) effectively captured the multifaceted nature of burnout, particularly its impact on emotional well-being and professional functioning.
- Burnout was most pronounced in the dimensions of emotional exhaustion and depersonalization. A significant number of participants reported feeling emotionally drained and distanced from their patients. However, many still reported a relatively high sense of personal accomplishment, suggesting that despite mental fatigue, a core of intrinsic motivation and professional pride continues to drive healthcare workers forward.
- The analysis of demographic variables revealed important associations. Female professionals, younger age groups, and unmarried individuals exhibited significantly higher burnout levels.

Recommendations

- By implementing institutional wellness programs that include resilience training, schedule rationalization, mental health support, and peer networks.
- Leadership commitment, policy support, and investment in healthy work environments should form the cornerstone of organizational change.
- Peer support systems and structured **team debriefings** can be leveraged to create shared coping mechanisms and **reduce professional isolation**. These systems must be actively promoted within institutions as sustainable sources of psychological safety.
- Reviewing staffing norms, redistributing administrative responsibilities, and introducing flexible scheduling to protect work-life balance.
- To implement proactive programs that foster resilience and mental well-being. Regular mental health screening, accessible counselling, and normalization of support-seeking behaviours