A Cross-Sectional Study on Workplace Stress and Burnout Among Nurses

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ABSTRACT

Background:

Workplace stress and burnout among nurses have emerged as critical challenges that compromise not only individual well-being but also patient safety and healthcare service quality. These issues are particularly prominent in the Indian context due to long working hours, staff shortages, and emotional demands placed on nurses.

Aim:

To assess the prevalence and contributing factors of workplace stress and burnout among nurses and to examine the relationship between stress levels and selected organizational and personal variables using self-structured questionnaires.

Design:

A cross-sectional descriptive study was conducted to evaluate stress and burnout among nurses at a single point in time.

Sample:

120 staff nurses aged 25 to 50 years were selected from various departments using stratified random sampling techniques.

Result:

The findings indicated that 61% of participants had moderate to high stress levels, and 55% exhibited signs of moderate to high burnout. Major contributors to burnout were high workload, inadequate autonomy, and lack of administrative support. Nurses who reported organizational support practices like flexibility in duty hours and emotional well-being programs had significantly lower burnout levels.

Conclusion:

Workplace stress and burnout remain widespread among nurses, with clear associations to organizational factors. Systemic changes including leadership reform, work schedule flexibility, and nurse empowerment are recommended to reduce stress and improve work satisfaction.

Keywords:

Workplace stress, Nurse burnout, Cross-sectional, Self-structured tool, Leadership support, Organizational stressors

1. INTRODUCTION

Nurses are the backbone of the healthcare delivery system. However, the high-pressure environment they operate in often leads to physical fatigue, psychological strain, and eventually burnout. Burnout, classified as an occupational phenomenon by the World Health Organization, results from prolonged exposure to job-related stressors without adequate coping mechanisms or institutional support.

In India, where nurse-patient ratios are often unfavourable, and shifts are long and emotionally taxing, burnout rates are rising. While many global studies have focused on this issue, Indian studies, particularly using tailored tools suited to the local context, are limited. Thus, this study used a self-structured questionnaire to identify workplace stressors and burnout patterns among nurses and assess the impact of organizational interventions.

2. METHODOLOGY

2.1 Research Design

A **cross-sectional descriptive** study design was employed to gather data at a single point in time, focusing on the current stress and burnout levels among nurses and their association with workplace factors.

2.2 Sample and Sampling Technique

The sample consisted of **120 staff nurses**, aged **25–50 years**, working in a selected hospital at Indore. The selection was done using **stratified random sampling** to ensure equal representation from different departments

2.3 Research Tool: Self-Structured Questionnaire

A **self-structured questionnaire** was developed and validated by experts in nursing and psychology. It consisted of **four sections**:

- **Section A:** Socio-demographic profile
- **Section B:** Workplace Stress Scale (20 items)
- **Section C:** Burnout Inventory (15 items)
- **Section D:** Organizational Interventions Checklist (10 items)

Scoring Pattern:

- **Workplace Stress Scale:** 5-point Likert scale (1 = Never to 5 = Always), max score = 100
- **Burnout Inventory:** 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), max score = 75
- **Higher scores** indicate higher stress and burnout levels.

2.4 Validity and Reliability

- **Content validity** was established by a panel of 5 experts.
- **Pilot testing** was done with 20 nurses (not included in final analysis).
- **Reliability**: Cronbach's alpha = 0.87 for the stress scale and 0.84 for the burnout inventory.

2.5 Data Collection Procedure

- Duration: **January to March 2025**
- Method: Self- Structured questionnaires were administered.
- Participants completed them during break hours or after duty.
- Consent: Informed consent was obtained, and confidentiality was assured.

2.6 Data Analysis

- Descriptive statistics (mean, SD, percentage), t-tests, and **multiple regression analysis** were conducted to identify predictors of burnout.

2.7 Ethical Considerations

Prior permission was obtained from the institution. Consent was taken from the participants.

3. RESULTS

3.1 Stress and Burnout Prevalence

- **61% (n = 73)** of staff nurses reported **moderate to high workplace stress**.
- **55% (n = 66)** experienced **moderate to high burnout**, particularly in the domains of emotional exhaustion and job disengagement.

3.2 Key Predictors of Burnout

Predictor	Beta (β)	Significance (p)
High Workload	0.42	< .001
Low Autonomy	0.31	< .01
Poor Managerial Support	0.28	< .05

3.3 Impact of Organizational Support

Intervention Type	Mean Burnout Score	F-Value	p-Value
Mindfulness Training	18.4	6.72	< .01
Flexible Scheduling	19.9	5.88	< .05
Leadership Development	20.1	5.43	< .05
No Intervention (Control)	27.6	—	—

Table 1: Socio-Demographic Profile of Staff Nurses (N = 120)

Variable	Category	Frequency	Percentage
Age	25–30	40	33.3%
	31–35	35	29.2%
	36–40	25	20.8%
	41–50	20	16.7%
Gender	Female	98	81.7%
	Male	22	18.3%
Marital Status	Married	75	62.5%
	Unmarried	45	37.5%

Variable	Category	Frequency	Percentage
Qualification	GNM	50	41.7%
	B.Sc. Nursing	55	45.8%
	Post Basic B.Sc.	10	8.3%
	M.Sc. Nursing	5	4.2%
Experience	1–5 years	45	37.5%
	6–10 years	40	33.3%
	More than 10 years	35	29.2%
Department	ICU/Emergency	38	31.7%
	General Ward	30	25.0%
	OPD/Clinics	22	18.3%
	Operation Theatre	15	12.5%
	Admin/Teaching	15	12.5%

Table 2: Descriptive Statistics for Stress and Burnout Scores

Variable	N	Mean	Median	SD
Workplace Stress Score	120	74.6	76.0	9.2
Burnout Inventory Score	120	57.8	58.0	7.4

5. DISCUSSION

The study revealed that **61%** of nurses experienced moderate to high stress and **55%** showed moderate to high levels of burnout. These findings confirm that nursing remains a high-stress profession, especially in Indian urban healthcare settings.Key contributors to burnout included **high workload**, **limited autonomy**, and **poor managerial support**, aligning with global research on occupational stress models. Younger and less experienced nurses were particularly vulnerable.

Organizational interventions—such as **mindfulness programs**, **flexible scheduling**, and **leadership support**—were associated with significantly lower burnout scores, suggesting their effectiveness in improving nurse well-being.

Overall, the findings emphasize the importance of institutional responsibility in addressing nurse stress through supportive policies and wellness initiatives.

6. CONCLUSION

The study highlights that stress and burnout among nurses are not only common but also significantly related to systemic workplace issues. Interventions targeting leadership behavior, workload distribution, and empowerment can substantially reduce the psychological burden on nurses.

Healthcare organizations must recognize the need for **proactive interventions** that improve both nurse well-being and institutional performance. Self-structured tools tailored to local contexts offer valuable insights and should be incorporated into regular staff assessments.

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