

ASSESSMENT OF BURNOUT AND JOB SATISFACTION AMONG CRITICAL CARE NURSES OF TERTIARY CARE HOSPITALS, PESHAWAR

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Abstract

Background: Burnout among critical care nurses is a growing concern due to the demanding nature of intensive care and emergency settings. High levels of occupational stress may adversely affect nurses' well-being, job satisfaction, and the quality of patient care. This study assessed burnout and job satisfaction among critical care nurses working in tertiary care hospitals in Peshawar, Pakistan.

Methods: A descriptive cross-sectional study was conducted from September to November 2025 among 203 nurses working in the intensive care units (ICUs) and emergency departments (ERs) of Hayatabad Medical Complex, Khyber Teaching Hospital, and Lady Reading Hospital. Participants were selected using convenience sampling. Data were collected using a structured, validated questionnaire after obtaining informed consent. Descriptive statistics and correlation analysis were performed using SPSS

version 27, with statistical significance set at $p < 0.05$.

Results: Of the 203 participants, 72.9% were aged 23–29 years and 71.4% were female. Most nurses reported positive job satisfaction, with 56.7% agreeing and 20.2% strongly agreeing that their job provided a high level of satisfaction. Additionally, 88.7% agreed or strongly agreed that their work was meaningful, while 83.3% felt confident in their nursing role. However, burnout remained prevalent: 35.0% of participants reported sometimes feeling burned out, and 32.5% reported always experiencing burnout. Furthermore, 37.9% always felt overburdened by their professional responsibilities, and 26.6% sometimes experienced excessive workload. Despite these challenges, many participants reported adequate opportunities for professional learning and development.

Conclusion: Critical care nurses in tertiary care hospitals demonstrated generally high levels of job satisfaction despite experiencing considerable burnout and work-related stress. These findings highlight the need for organizational interventions aimed at reducing workload, preventing burnout, strengthening managerial support, and promoting nurses' psychological well-being to improve workforce retention and the quality of patient care.

INTRODUCTION

Nursing is the backbone of healthcare systems, playing a vital role in patient care, recovery, and overall hospital functioning. Especially in high-stress areas like Emergency Rooms (ER) and Intensive Care Units (ICU) (1). These roles involve constant pressure, critical decision-making, and emotional strain, often leading to burnout and reduced job satisfaction. In tertiary care hospitals, where patient needs are more complex, these challenges are intensified. Despite their crucial role, the well-being of ER and ICU nurses is often overlooked (2).

Burnout is a psychological syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment resulting from prolonged exposure to occupational stress (3). Critical care nurses are particularly vulnerable because they work in high-pressure environments that require continuous patient monitoring, rapid clinical decision-making, and management of critically ill patients (4). Excessive workload, staff shortages, rotating shifts, frequent exposure to patient suffering and death, and limited organizational support contribute significantly to burnout. Burnout not only affects nurses' physical and mental well-being but also compromises patient safety, quality of care, job performance, and staff retention (5). Conversely, job satisfaction is associated with improved work performance, higher quality of patient care, and reduced turnover, making it a key indicator of healthcare workforce stability (6).

Critical care units in tertiary care hospitals face increasing demands due to rising patient acuity and healthcare system challenges (7). Understanding the relationship between burnout and job satisfaction among critical care nurses is essential for developing effective strategies to improve workplace conditions and enhance patient outcomes (8). Although several international studies have examined these issues, evidence from Pakistan, particularly from tertiary care hospitals in Peshawar, remains limited. Therefore, this study aimed to assess the prevalence of burnout and the level of job satisfaction among critical care nurses working in tertiary care hospitals in Peshawar.

and to provide evidence that may guide interventions to improve nurses' well-being and healthcare quality (9).

OBJECTIVES

- To assess the level of job satisfaction among nurses
- To assess the burnout ratio among nursing staff

OPERATIONAL DEFINITIONS

- **Burnout:** Burnout is a state of emotional exhaustion, depersonalization, and low personal accomplishment, measured using the Maslach Burnout Inventory-HSS, widely used in nursing. Higher burnout is indicated by high scores in exhaustion and depersonalization, and low scores in personal accomplishment
- **Job Satisfaction** the extent to which nursing staff feel fulfilled, content, and positive about their job roles, responsibilities, and work environment. It will be measured using the Minnesota Satisfaction Questionnaire (MSQ), a widely used tool in healthcare research.

MATERIALS AND METHODS

A descriptive cross-sectional study was conducted among critical care nurses working in the intensive care units (ICUs) and emergency departments (ERs) of three tertiary care hospitals in Peshawar, namely Hayatabad Medical Complex (HMC), Khyber Teaching Hospital (KTH), and Lady Reading Hospital (LRH), from **1 September 2025 to 30 November 2025**. A convenience sampling technique was employed. Based on a target population of 426 nurses, a sample size of 203 participants was calculated using the Raosoft sample size calculator with a 95% confidence level and a 5% margin of error. Nurses with a valid Pakistan Nursing and Midwifery Council (PNMC) license, at least six months of professional experience, and working in the ICU or ER who provided informed consent were included in the study. Nurses with less than six months of experience, those serving in administrative positions, or those unavailable during the data collection period were excluded.

Data were collected using a structured, validated, and adopted questionnaire. Participants were informed about the purpose of the study, and written informed consent was obtained before questionnaire administration. A pilot study was conducted to assess the clarity, feasibility, and reliability of the data collection instrument prior to the main survey. The collected data were entered and analyzed using **SPSS version 27**. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize participant characteristics and study variables. The relationship between burnout and job satisfaction was assessed using correlation analysis, and statistical significance was determined at a **p-value < 0.05**.

RESULTS

Participant Characteristics

A total of 203 nurses participated in the study. The majority of participants were aged 23–29 years (72.9%, $n = 148$), followed by 30–37 years (24.1%, $n = 49$). Only 2.5% ($n = 5$) were aged 38–45 years, while 0.5% ($n = 1$) were older than 45 years. Most participants were female (71.4%, $n = 145$), whereas 28.6% ($n = 58$) were male. Regarding professional designation, 48.3% ($n = 98$) were ICU nurses, 46.3% ($n = 94$) were emergency room nurses, 3.4% ($n = 7$) worked in pediatric units, and 2.0% ($n = 4$) were employed in other nursing roles.

Regarding professional experience, 41.9% ($n = 85$) had 1–3 years of ICU/ER experience, 24.6% ($n = 50$) had 4–6 years, 20.2% ($n = 41$) had less than one year, and 12.8% ($n = 26$) had more than seven years of experience. Most participants held a Post RN qualification (68.5%, $n = 139$), followed by a Bachelor of Science in Nursing (BSN) degree (29.6%, $n = 60$), while only 2.0% ($n = 4$) had a Master of Science in Nursing (MSN) qualification. Nearly half of the participants (45.8%, $n = 93$) were working in the emergency department, followed by the medical/surgical intensive care unit (ICU) (25.1%, $n = 51$), cardiac care unit (CCU) (12.3%, $n = 25$), pediatric intensive care unit (PICU) (7.9%, $n = 16$), and other departments (8.9%, $n = 18$) (Table 1).

RESPONSES TO THE QUESTIONNAIRE

The majority of nurses reported positive perceptions of their work environment and job satisfaction. More than half of the participants (56.7%, $n = 115$) agreed that their job provided a high level of satisfaction, while 20.2% ($n = 41$) strongly agreed. Similarly, 47.8% ($n = 97$) strongly agreed and 40.9% ($n = 83$) agreed that their job was meaningful. Regarding professional recognition, 49.8% ($n = 101$) agreed and 33.5% ($n = 68$) strongly agreed that their work allowed them to demonstrate their professional worth. Concerning patient care, 35.0% ($n = 71$) strongly agreed and 30.0% ($n = 61$) agreed that they had sufficient time to provide quality patient care. Furthermore, 46.8% ($n = 95$) agreed and 31.5% ($n = 64$) strongly agreed that they had adequate opportunities for learning during their work. Likewise, 47.3% ($n = 96$) strongly agreed and 40.4% ($n = 82$) agreed that they felt confident in their nursing role (Table 2).

BURNOUT AND WORK-RELATED STRESS

Despite reporting positive levels of job satisfaction, many participants also experienced work-related stress and burnout. More than one-third of the nurses (35.0%, $n = 71$) reported sometimes feeling burned out because of their work, while 32.5% ($n = 66$) reported always experiencing burnout.

Regarding relationships with supervisors, 27.6% ($n = 56$) reported sometimes experiencing difficulties working with their supervisors, whereas 27.1% ($n = 55$) stated that they never experienced such difficulties. Similarly, 29.1% ($n = 59$) reported sometimes feeling tired of working with their supervisors or colleagues, while 25.1% ($n = 51$) reported never experiencing this issue. Concerning professional development, 42.9% ($n = 87$) stated that they always had opportunities to improve their professional qualifications, whereas 18.2% ($n = 37$) reported that

such opportunities were available often or sometimes. Furthermore, 37.9% ($n = 77$) reported always feeling overburdened by their professional responsibilities, while 26.6% ($n = 54$) indicated that they sometimes experienced an excessive workload (Table 3).

Table 1. Socio-demographic Characteristics and Questionnaire Responses (N=203)

Variable	Category	Frequency (n)	Percentage (%)
Age	23–29	148	72.9
	30–37	49	24.1
	38–45	5	2.5
	Above 45	1	0.5
Gender	Male	58	28.6
	Female	145	71.4
Job Title	ICU Nurse	98	48.3
	ER Nurse	94	46.3
	Paeds Nurse	7	3.4
	Other	4	2.0
Experience	<1 year	41	20.2
	1–3 years	85	41.9
	4–6 years	50	24.6
	Above 7 years	26	12.8
Education	Post RN	139	68.5
	BSN	60	29.6
	MSN	4	2.0
Department	MED/SURG ICU	51	25.1
	ER	93	45.8
	CCU	25	12.3
	PEADS ICU	16	7.9
	Other	18	8.9

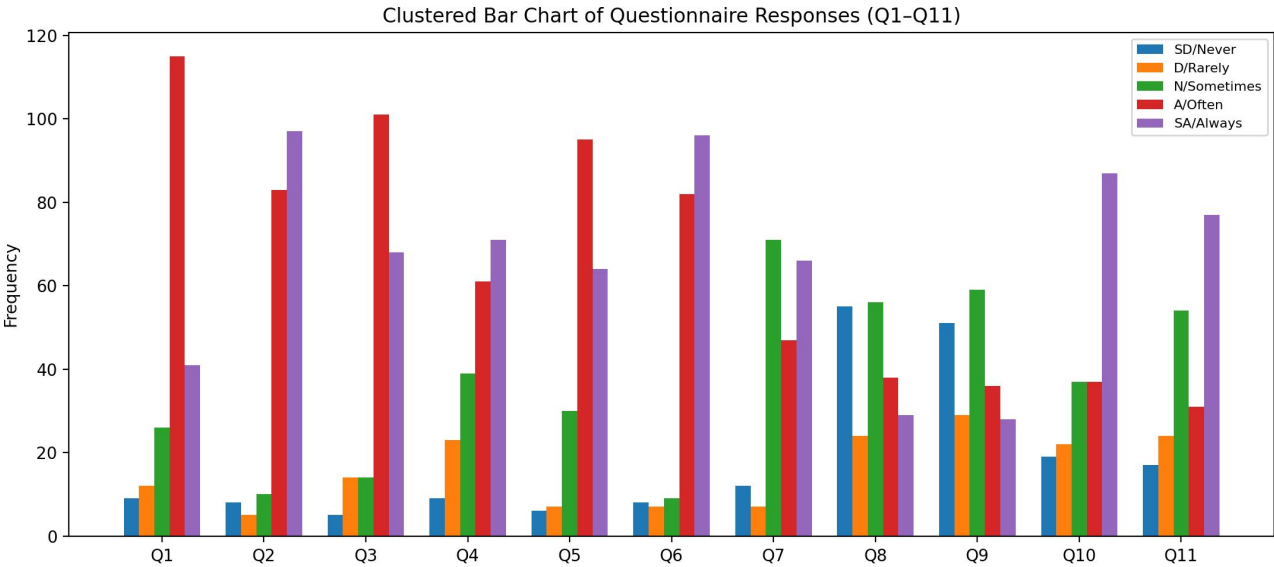


Figure 2: Clustered Bar Chart of Questionnaire Responses (Q1-Q11)

DISCUSSION

This study assessed burnout and job satisfaction among critical care nurses working in tertiary care hospitals in Peshawar. Although the majority of participants reported positive job satisfaction, a considerable proportion also experienced symptoms of burnout and work-related stress. These findings suggest that job satisfaction and burnout can coexist, particularly in demanding clinical environments such as intensive care units (ICUs) and emergency departments (ERs), where nurses face high patient acuity, heavy workloads, and emotionally challenging situations.

Most participants expressed satisfaction with their jobs, perceived their work as meaningful, and felt confident in their professional roles. They also reported opportunities for learning and professional development. These findings are consistent with previous studies indicating that professional recognition, meaningful work, and opportunities for career growth contribute positively to nurses' job satisfaction. A supportive work environment and professional autonomy have also been identified as important factors that enhance motivation and improve retention among nursing staff (2).

Despite these positive perceptions, burnout remained common among the participants. More than two-thirds of nurses reported experiencing burnout either sometimes or always, and over one-third consistently felt overburdened by their professional responsibilities. Similar findings have been reported in studies conducted in critical care settings worldwide, where excessive workload, long working hours, staff shortages, rotating shifts, and continuous exposure to critically ill patients contribute significantly to emotional exhaustion and occupational stress. Persistent burnout may

negatively affect nurses' physical and psychological well-being, increase absenteeism and turnover, and compromise the quality and safety of patient care (4).

The findings also indicate that interpersonal relationships with supervisors and colleagues may influence nurses' workplace experiences. Although many participants reported no difficulties, a substantial proportion experienced occasional challenges in working with supervisors or colleagues. Previous research has shown that supportive leadership, effective communication, and teamwork play an essential role in reducing workplace stress and improving job satisfaction. Strengthening managerial support and promoting a collaborative work environment may therefore help reduce burnout among critical care nurses (1).

Overall, the findings emphasize the need for organizational strategies to improve nurses' well-being. Interventions such as adequate staffing, balanced workload distribution, stress management programs, mental health support services, continuing professional development, and recognition of nurses' contributions may reduce burnout while maintaining high levels of job satisfaction. Future studies employing longitudinal or multicenter designs are recommended to further explore factors associated with burnout and evaluate the effectiveness of targeted interventions.

CONCLUSION

This study concludes that nurses working in intensive care units and emergency departments of tertiary care hospitals in Peshawar generally experience satisfactory levels of job satisfaction and perceive their work as meaningful and professionally rewarding. Nevertheless, burnout remains a common challenge, with many nurses reporting emotional exhaustion, excessive workload, and work-related stress. These findings indicate that although nurses remain committed to their profession, demanding working conditions continue to affect their well-being. Hospital administrators and nursing leaders should therefore implement strategies that simultaneously enhance job satisfaction and reduce occupational burnout to improve staff retention, quality of care, and patient outcomes.

RECOMMENDATIONS

Healthcare administrators should implement strategies to reduce burnout among critical care nurses by ensuring adequate staffing, balanced workload distribution, supportive leadership, and access to stress management and mental health services. Regular assessment of burnout and job satisfaction, along with opportunities for continuing professional development and recognition of nurses' contributions, may enhance workplace well-being, improve staff retention, and ultimately promote better patient care.

LIMITATIONS

This study has several limitations. First, the cross-sectional study design limits the ability to establish causal relationships between burnout and job satisfaction. Second, the use of convenience sampling may reduce the generalizability of the findings to nurses working in other

hospitals or healthcare settings. Third, the study relied on self-reported questionnaires, which may be affected by recall bias and social desirability bias. Finally, data were collected only from tertiary care hospitals in Peshawar; therefore, the findings may not represent nurses working in secondary or primary healthcare facilities or in other regions of Pakistan.

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