

## ORIGINAL ARTICLE

**PREVALENCE AND FACTORS ASSOCIATED WITH STRESS AMONGST NURSES IN TERTIARY CARE HOSPITALS IN PESHAWAR****Shakir Ullah Khan, Hamza Munir, Aman Ullah\*, Nawabzada Khan\*\*, Nisar Khan\*\*\*, Muhammad Imtiaz Afridi**

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**Background:** Nursing is a challenging profession worldwide, frequently linked to significant stress levels stemming from various aspects of the healthcare setting. This study aimed to assess the prevalence of stress and identify its contributing factors among nurses employed in tertiary care hospitals in Peshawar, Pakistan. **Methods:** This cross-sectional study was conducted in Hayatabad Medical Complex (HMC) and Khyber Teaching Hospital (KTH), Peshawar. Participants meeting the inclusion criteria were invited to participate. Data were collected using a self-administered questionnaire adapted from the Spanish version of the Nursing Stress Scale. The data were analysed on SPSS-24. **Results:** The study involved 366 nurses with mean age  $31.06 \pm 6.54$  years, 23.5% were male and 76.5% were female. A total of 56.0% of nurses indicated trouble with the Matron/Supervisor/Head Nurse, and 75.4% of nurses acknowledge that political influence by others can cause stress during duty. Furthermore, 60.7% of nurses indicated that they could not get holidays on their wish. Nearly 82.0% agreed that they experienced job stress, and 76.0% experienced stress personally. **Conclusion:** Stress was prevalent in nurses, with primary stressors identified as low salaries, political influence, supervision challenges, and inadequate holiday allowances.

**Keywords:** Occupational stress, Nurse, Job satisfaction, Workload, General health, Pakistan

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**INTRODUCTION**

Stress is how our body reacts to challenging situations, whether mental, physical, or emotional. Two key systems manage this reaction: the sympathetic nervous system, and the hypothalamus–pituitary–adrenocortical axis (HPA axis). Stress can come from internal sources, like personality traits, or external ones, like difficult situations. Research has identified three main types: acute (short-term), episodic (recurring), and chronic (long-term).<sup>1</sup> In contemporary organizational contexts, stress has emerged as one of the key determinants affecting individual efficacy and satisfaction; stress has had an impact on both our physical and mental health.<sup>2</sup>

Changes in occupational activities, job-related variables, or location can cause job stress<sup>3</sup>, can lead to behavioural, emotional, and physical problems, various malignancies, immune system problems, musculo-skeletal and cardiovascular issues, as well as increased risk of accidents and injuries among the physical repercussions. Work absenteeism, smoking, sleep issues, alcohol and drug abuse, and addiction are all behavioural effects of occupational stress.<sup>4</sup> The following traits of occupational stress apply to it: it is persistent, challenging to adjust to, frequently resulting in emotional swings, and challenging to modify with the demands of the working environment.<sup>5</sup>

Nursing professionals experience a variety of work-related stressors; some have to do with personality, while others have to do with the job, organizational structure, or customer service.<sup>6</sup> This

environment is also plagued by complex interpersonal relationships with the multi-professional team, daily contact with suffering, high-performance standards for the team, and worries about patient safety. There is a lack of understanding and autonomy, and this environment is devalued.<sup>7</sup> The nursing field is renowned for its challenging working conditions, demanding workloads, and generally low socioeconomic level.<sup>8</sup> Studies show that stress in nurses can lead to depression, patient isolation, absence, and a decline in their qualifications.<sup>9</sup> The literature has extensively researched nursing job performance since it indicates the calibre of care provided and, as a result, patient outcomes and satisfaction. Examining occupational stress and its related causes is one of the crucial steps that hospitals should do to enhance working conditions and reduce the work stress of nurses.<sup>10</sup>

Stress in nursing profession also contributes to absenteeism and high turnover rates.<sup>11</sup> Nurses frequently encounter occupational stress, are exposed to psychological abuse at work, and develop burnout and secondary traumatic stress.<sup>12</sup> Data collected from different healthcare systems and different cultures such as USA, Europe, and Asia, indicates that job stress tends to affect nursing profession worldwide.<sup>13</sup> A concern of global health is the incidence of occupational stress among nursing professions.<sup>14</sup> Since nursing work performance reflects the standard of care delivered and, consequently, patient outcomes and satisfaction, the field of nursing has undergone substantial research. One

of the key actions that hospitals should do is to improve working conditions and decrease workload of nurses and associated factors. Pakistan is one of the 57 nations with the worst labour shortages, prevalence of stressed among nurses are highly contextual which varies from organization, hence needed to be addressed at local level for necessary solution.<sup>15</sup> According to the Joint Learning Report from 2004 and the World Health Report from 2006, Pakistan is one of the 57 countries with the most serious workforce shortages. Nurses who are under stress tend to disregard the law and, as a result, warning indicators.<sup>16</sup> It harms people's bodies, minds, spirits, relationships, and cultures, which has myriad negative effects on people and their families. The aim of current study was to find out the prevalence and the associated factors with the stress among nurses working in teaching hospitals in Peshawar.

### METHODOLOGY

This descriptive cross-sectional study was carried out at two tertiary care hospitals in Peshawar, i.e., Hayatabad Medical Complex (HMC) and Khyber Teaching Hospital (KTH) from 1<sup>st</sup> January 2022 to 30<sup>th</sup> June 2022. A total of 366 nurses were selected through convenience sampling technique. Nurses working and available for data collection in the hospital were included in the study, while nurses who were not willing to participate were excluded. Participants who met the inclusion criteria were invited to participate in the study after receiving approval from the BOSAR Committee. All willing study participants were required to sign a written informed consent. Data were collected through a self-administered, pretested, validated, structured questionnaire. The questionnaire was translated into Urdu. It included three parts. The first part of the questionnaire measured the demographic information of the nurses. The second part of the questionnaire was a brief Nursing Stress Scale used to assess stressors in nursing. The third part consisted of questions about the factors which can cause stress in the study subjects.

Analysis was conducted using SPSS-24. For each survey question, frequency analysis was performed. Frequencies and percentages were calculated for all categorical variables, while means and standard deviations were calculated for all continuous variables.

### RESULTS

The mean age of all enrolled 366 nurses was 31.06±6.54 years. Out of the total, 86 (23.5%) were male and 280 (76.5%) were female, 177 (48.4%) were married, 125 (34.2%) were unmarried, 47 (12.8%) were ever married, and 17 (4.6%) were if ever married. (Table-1).

We also examined the core stress indicators in nurses during the job. Nine percent of nurses indicated something unexpected happened, 33.9% revealed their inability to control important tasks, and approximately 28% stated nervousness during their jobs (Table-2).

Many nurses report experiencing challenges and stressors in their work environment. Specifically, a majority (56.0%) indicated they were facing trouble with the Matron/Supervisor/Head Nurse, while slightly over half (54.4%) felt insecure. A significant number of nurses (75.4%) acknowledge that political influence by others can cause stress in their duties, and 71.6% attribute stress to management influence. A notable portion (60.7%) indicated they could not take holidays as they wished. The overwhelming majority (82.0%) agree that most nurses feel stress during their job, and a substantial portion (76.0%) personally experience stress as nurses (Table-3).

**Table-1: Demographic characteristics (n=366)**

Characteristic	Frequency (n)	Percentage (%)
<b>Gender</b>		
Male	86	23.5
Female	280	76.5
<b>Marital Status</b>		
Married	177	48.4
Unmarried	125	34.2
Ever Married	47	12.8
If Ever Married	17	4.6
<b>Education Level</b>		
MS	108	29.5
BS	119	32.5
BSc	91	24.9
Diploma	48	13.1
<b>Experience</b>		
<1 Year	14	3.8
1-5 Years	277	75.7
6-10 Years	66	18.0
11-15 Years	9	2.5

**Table-2. Core indicators of perceived level of stress among nurses working in selected hospitals [n (%)]**

Question	Never	Almost	Sometimes	Fairly often	Very often
In the recent past, how often have you been upset because of something that happened unexpectedly?	119 (32.5)	72 (19.7)	95 (26.0)	47 (12.8)	33 (9.0)
In the recent past, how often have you felt that you could not control the important tasks in your life?	55 (15.0)	69 (18.9)	124 (33.9)	71 (19.4)	47 (12.8)
In the recent past, how often have you felt nervous and stressed?	39 (10.7)	50 (13.7)	88 (24.0)	101 (27.6)	88 (24.0)
In the recent past, how often have you felt confident about your ability to handle your problems?	49 (13.4)	41 (11.2)	118 (32.2)	86 (23.5)	72 (19.7)
In the recent past, how often have you felt that things were going your way?	65 (17.8)	66 (18.0)	121 (33.1)	70 (19.1)	44 (12.0)
In the recent past, how often have you found that you could not cope with all the things that you had to do?	85 (23.2)	75 (20.5)	94 (25.7)	50 (13.7)	62 (16.9)
All the things that you had to do?	88 (24.0)	57 (15.6)	90 (24.6)	82 (22.4)	49 (13.4)

**Table-3: Factors that cause stress in nurses [n (%)]**

Question	Yes	No
Are you having trouble with the Matron/Supervisor/Head nurse?	205 (56.0)	161 (44.0)
Do you feel secure at your job?	199 (54.4)	167 (45.6)
Can political influence by others cause stress in your duty?	276 (75.4)	90 (24.6)
Does management influence stress in your duty?	262 (71.6)	104 (28.4)
Do you take your holidays as you wish?	144 (39.3)	222 (60.7)
Do you agree that most nurses feel stressed during their jobs?	300 (82.0)	66 (18.0)
As a Nurse, do you feel stressed?	278 (76.0)	88 (24.0)

## DISCUSSION

Within the ever-evolving healthcare landscape, nurses serve as the cornerstone of patient care, playing a pivotal role in the healthcare system. Nonetheless, the demanding nature of their profession frequently subjects them to elevated levels of stress, posing significant implications not only for their personal well-being. It is also for the calibre of patient care they deliver.<sup>17</sup> By pinpointing particular stressors and comprehending their effects on nurses' welfare and professional efficacy, healthcare administrators and policymakers can formulate tailored interventions to alleviate stress and foster a more conducive work environment for nurses.

In our study findings, it emerged that 'Perceived stress' exhibited the highest prevalence of respondents reporting elevated levels of stress. This indicates that a significant proportion of participants in our study reported experiencing stress 'Fairly often' or 'Very often' within the context of 'Perceived stress 3'. As a result, 'Perceived stress 3' emerged as the figure indicating the highest stress level among those examined in our study. In a study<sup>18</sup> it was found that the majority (81%) of participants, agreed that nurses experience stress during their job. The remaining indicated that they did not feel stressed while performing their job duties. In another study carried out in India, 49% nurses indicated experiencing frequent stress due to uncertainties regarding treatment protocols, and 48% of nurses reported frequent stress attributed to patient interactions, while the majority, accounting for 59%, identified workload as the primary cause of stress.<sup>19</sup>

In the present study the marital status of nurses was examined, revealing that 177 (48.4%) were currently married, 125 (34.2%) were unmarried, 47 (12.8%) had previously been married, and 17 (4.6%) had a history of past marriages. This distribution highlights the diversity of marital statuses within the nursing demographic under investigation. For many married nurses, balancing the demands of their profession with family responsibilities can be stressful. Nurses often work long hours and irregular shifts and face emotionally taxing situations, all of which can contribute to stress.

Adding family obligations on top of this can create additional pressure. Being married can also provide sources of support and resilience in dealing with stress.<sup>20</sup> A supportive spouse can offer understanding,

encouragement, and practical assistance, which can help alleviate some of the stress associated with the nursing profession. Marriage can introduce stressors unrelated to work, such as financial concerns, relationship conflicts, or parenting responsibilities. These additional stressors can compound the challenges faced by married nurses.<sup>21</sup>

Many nurses report experiencing challenges and stressors in their work environment. Specifically, a majority indicated they were facing trouble with the Matron/Supervisor/Head Nurse while slightly over half felt insecure. This suggests potential issues in leadership and management within healthcare settings. This aligns with previous research indicating that poor leadership and communication can contribute to nurse dissatisfaction and stress.<sup>22</sup> The high percentage of nurses feeling insecure in their jobs underscores the importance of providing a supportive and stable work environment to foster nurse well-being and job satisfaction.<sup>23</sup>

A significant number of nurses acknowledged that political influence by others can cause stress in their duties, and a similar percentage attribute stress to management influences. This emphasizes the need for effective organizational policies and practices to mitigate external pressures and promote a positive work culture.<sup>24</sup> Labrague *et al*<sup>25</sup> showed that nurses perceive a high level of political influence, including organizational politics in pay scales and promotion.<sup>25</sup> A notable portion indicated they could not take holidays as they wished. The inability raises concerns about work-life balance and the potential impact on nurse burnout and overall job satisfaction.<sup>26</sup>

An overwhelming majority agree that most nurses feel stress during their jobs, and a substantial portion personally experience stress as nurses, underscoring the pervasive nature of stress within the nursing profession. This highlights the urgent need for targeted interventions and support mechanisms to address stressors and promote nurses' mental health and well-being.<sup>18</sup>

Our results contradict the results of Hoedl *et al*<sup>27</sup> who stated that the nurses experience mild stress due to increased working hours during COVID-19 pandemic. Our findings highlight the prevalence of challenges and stressors the nurses face in their work environment, and shed light on several key areas of concern.

## CONCLUSION

Stress is widespread among nurses in Peshawar's tertiary care hospitals, with inadequate salaries, political interference, supervisory issues, and insufficient leave allowances being major contributing factors. Tackling these stressors is essential to enhancing nurses' well-being and improving the quality of patient care.

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HM: Data collection

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