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Stress Level and Coping Strategies among Baccalaureate Internee Nurses in Private and Public Teaching Hospitals in Peshawar

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ABSTRACT

Introduction: *Nurses are a vital part of the healthcare system, which makes patient care and the delivery of healthcare possible. Nurses are involved in a very close and more interaction with patients as compared to other healthcare professionals. Nursing is known to be a highly stressful profession, due to the multidisciplinary nature of working as well as providing counselling and guidance to patients and their families. Nurses have been exposed to high physical and psychological stresses, negatively influencing their well-being.*

Objective: *To determine the stress levels and coping strategies among generic internship nurses working in tertiary care hospitals of Peshawar.*

Methodology: *A Quantitative Descriptive Cross-sectional study was carried out in tertiary care hospitals of Peshawar from June 2024 to December 2025 and included 169 internee nurses via a convenience sampling technique. The Perceived Stress Scale (PSS) and Coping Behaviour Inventory (CBI) were used for data collection.*

Results: *Data was analysed from 169 nurses, with a mean age of 24.38±.635, n=78 (46.2%) were male, and n=91 (53.8%) were female. Participants were included from 14 wards, with the highest number of participants from orthopaedic (28), ICU (22) and gynaecology (21). Severe stress was reported in 29%, moderate in 61% and mild in 10% of participants. Overall stress was reported in 89% of private and 80% of government hospital nurses. Working on the night shift (p=0.031), the gynaecology ward (p=0.002), and the orthopaedic ward (p=0.037) had a significant association with occupational stress.*

Introduction

Nurses are the vital healthcare force which makes the best patient care possible. Without nurses, a healthcare system cannot achieve its goals, nor can an effective prognosis be ensured.[1,2] Nurses play the role of a bridge between the doctors, physicians, surgeons and the patients, as the treatments and care recommended by doctors are delivered through nurses.[3] The multidisciplinary role of nurses makes their job even tougher, and requires intense physical, emotional and psychological labour.[4,5] Nurses have to offer their services in various situations and on different shifts, making it an emotionally demanding and highly stressful profession. Novice nurses and nursing student internees are comparatively under higher stress than experienced nursing staff.[6,7] Generally, Stress is a condition of feeling psychosomatic heaviness, while stress has been reported to be the physical and psychological reaction of the body to job and work requirements. The International Labour Organisation states that Stress is a hazardous somatic reaction which is a result of disturbance among supposed needs, the supposed resources and the capacity of individuals to cope with them.[8] Workplace-related stress, termed as occupational stress are more common in workplaces where workers are less helped and supported.[9] The sources of occupational stress are frequent in the nursing profession. While occupational stresses are more common in the nursing profession, due to varying shifts of duty, higher influx of patients, and the requirement of caring for each patient, while simultaneously following the human rights, ethics and workplace and organisational policy. The most common working environment stressors include long-lasting workload, no autonomy, limited resources, lack of job security, low wages, lower self-esteem, and lack of motivation.[10,11]

Studies have reported occupational stress in nurses as 16% to 48% in 1636 studied nurses; studies have reported significant differences in nurses within different cities of the country.[12] Thus, occupational stress, job satisfaction and workplace harassment have been reported by nurses working in Pakistani hospitals. While some of the nurses reported higher job satisfaction and better relations with the management of hospitals, still lower wages, increasing workload and lack of Organisation in the workplace has been the concerns.[13]

The current study aimed to determine the stress and to identify the coping strategies among the levels of generic internship nurses in Peshawar.

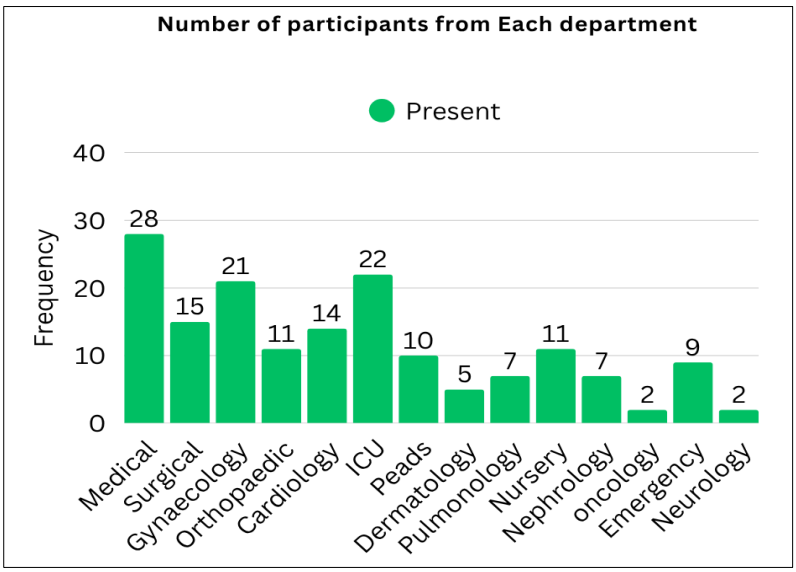
Methods

This research project was conducted at one public and one Private tertiary care hospital in Peshawar from June 2024 to December 2025. The study was approved by the Institutional Ethical Review Board (IERB). The study was based on a quantitative research cross-sectional study design. The population of the study were the intern graduate nurses who had graduated in the last six months and were attending the two study settings as intern nurses. Non-probability purposive sampling technique was used, and sample size was calculated with an online sample size calculator with a default prevalence of 80%, a margin of error 5% and a confidence level of 95%. The resulting sample size was 195 participants, after removal of 16 incomplete questionnaires; data from 169 participants were analysed. Inclusion criteria of the study included participants with at least 18 years old, had graduated with a Bachelor of Science in Nursing (BSN) degree in the last six months, were working for the first time as nurses, and had no prior clinical experience or history of working in a large or tertiary care hospital. The purpose of the inclusion criteria was to include only those participants in the study who were experiencing occupational stress of working in a large or tertiary care hospital for the first time. Exclusion criteria included nurses with prior clinical experience, working in more than one hospital and having other graduation and higher

education qualifications other than BDN. All the interested participants were included in the study upon verbal and written consent. Data was collected with the Perceived Stress Scale (PSS) and Coping Behaviour Inventory (CBI), pre-validated and used in earlier research studies. Reliability analysis of the scales reported Cronbach's alpha for (PSS=0.86-0.89) and (CBI=0.75-0.84). Questionnaires were provided in printed form to nurses, and were shared electronically with online links if required by participants. Data collected was entered in Microsoft Excel 2024 and was entered in Statistical Package for Social Sciences (SPSS) version 27 for further analysis. Data normality was tested for scale variables using graphical methods (Q-Q plots, histograms) and Kolmogorov-Smirnov, with $P>0.05$. The difference between the variables was tested with univariate analysis by using the chi-square test, and the level of significance was $P<0.05$. Results have been reported in Tables and Graphs.

Results

Data was analysed from 169 participants, aged 24-26 years, with a mean age of 24.38±.635 years. In the studied participants, n=78 (46.2%) were male, and n=91 (53.8%) were female. The participants' demographics data reported n= 145 (85.8%) single and n=24 (14.2%) were married. Participants were included from different wards, as illustrated in Figure 1.



The current study enrolled n= 80 (47.3%) of participants from a government tertiary care teaching hospital, while n=89 (52.7%) participants were performing their duty in a tertiary care teaching hospital.

Work-related stress level was reported as 10% mild, 61% moderate, and 29% severe stress, as reported in Table I.

Stress Categories	Frequency	Percent	Valid Percent	Cumulative Percent
Mild stress	17	10.1	10.1	10.1
Moderate Stress	103	60.9	60.9	71.0
Severe Stress	49	29.0	29.0	100.0
Total	169	100.0	100.0	

Comparison of PSS score between the government and private hospitals was reported in descriptive and inferential statistics in terms of the univariate analysis, Chi-square.

Duty Station	Stress Level	Frequency	Percent	Valid Percent	Cumulative Percent
Government	Mild Stress	10	12.5	12.5	12.5
	Moderate Stress	54	67.5	67.5	80.0
	Severe Stress	16	20.0	20.0	100.0
	Total	**80**	**100.0**	**100.0**	—
Private	Mild Stress	7	7.9	7.9	7.9
	Moderate Stress	49	55.1	55.1	62.9
	Severe Stress	33	37.1	37.1	100.0
	Total	**89**	**100.0**	**100.0**	—

The descriptive statistics showed more severe stress in nurses from the private hospitals, and lower mild and moderate stress as compared to government hospitals. The difference was also significant with P=0.021 by univariate analysis, as reported in Table II.

Out of 169 participants, 78 were male participants of whom n=48 (61.5%) had a moderate level of stress, n=22 (28.2%) had a severe level of stress, and n=8 (10.3%) had a mild level of stress. Thus, 91 participants were female, of whom n=55 (60.4%) have a moderate level of stress, n=27 (29.7%) have a severe level of stress, and n=9 (9.9%) have a mild level of stress. There was no significant difference reported among the male and female genders (p=0.41), or between college graduation at private or public level institutions (p=0.25). working on the night shift (p=0.031) as compared to the morning shift was more stressful, while working in the gynaecology ward (p=0.002) and in the orthopaedic ward (p=0.037) were reported as significant duty places for stress.

Discussion

The present study aimed to evaluate the prevalence and severity of work-related stress among healthcare professionals while it simultaneously differentiated between types of hospital and demographic factors as well. Findings of the current study reported that a staggering 90% of participants experienced moderate to severe stress levels, with only a small minority (10%) reporting mild stress. This high prevalence underscores the intensifying pressure within the clinical environment, a trend that is increasingly documented in global nursing and healthcare literature. Findings of the current study can be found in parallel with a study from Pakistan, which reported 80% of stress prevalence in nurses working in the country.

A primary finding of this research was the significant difference in stress levels between government and private tertiary care hospitals ($p = 0.021$). While moderate stress was more prevalent in government facilities (67.5% vs. 55.1%), the private sector reported a notably higher burden of severe stress (37.1% vs. 20.0%). Differences in the prevalence of nurses' stress among the public and private hospitals have been reported in the literature. For instance, a matching study from Ethiopia reported its prevalence 51.6% among public hospitals and 46.4% in private hospitals.[14] Thus, another study from Pakistan also reported higher stress in nurses working in the private sector ($M = 22.6 \pm 3.8$ as compared to the ($M = 19.8 \pm 4.2$, $t = 4.23$, $p < 0.001$) government sector.[15] While the type of institution can be found associated with stress level among nurses, the specific type of hospital which is associated with stress remains controversial in the literature, and different determinants and duty patterns in the hospital settings can influence the association.[15]

This difference may be caused by differing organisational cultures and job security profiles of these institutions. Job flexibility and better job security have been reported with reduced incidence

of psychological stress and lower chances of anxiety in workers.[16] While government hospitals often face higher patient volumes, private institutions frequently impose more rigorous performance metrics, longer working hours, and stricter administrative demands, which may push "moderate" stress into the "severe" category. These results align with previous studies suggesting that the lack of institutional support and higher job instability in private healthcare settings significantly contribute to psychological distress. Thus, it has been affirmed from the literature that due to such factors, nurses working in the private sector may experience more occupational stress.[17] Furthermore, work-life balance is crucial in mediating the impact of stress on healthcare professionals, beyond the organisational factors.[18]

Interestingly, our study found no significant difference in stress levels between male and female participants ($p = 0.41$). Both genders reported moderate stress levels at roughly 60% and severe stress at approximately 28–29%. This suggests that the clinical environment's stressors, such as workload, patient acuity, and emotional labour, affect healthcare workers universally, regardless of gender. Likewise, a study conducted in China reported no significant difference between genders for association with occupational stress, although it found that males and females have specific stressors. For instance, male gender was more associated with violence among medical staff and promotion pressure, while stress in female healthcare professionals was associated with work-related disputes.[19] Similarly, the type of educational institution (private vs. public college) did not predispose individuals to higher stress, suggesting that professional stress is more a product of the current work environment than of prior academic background.

Our analysis identified night shifts as a significant predictor of heightened stress ($p = 0.031$). The physiological disruption of circadian rhythms, combined with reduced staffing levels and the increased responsibility often placed on night-shift workers, likely explains this correlation. Literature has reported differences in stress in the day and night shift nurses, as in the day shift, stress was associated with a lack of support from the supervisors, and in the night shift, stress was associated with increased workload.[20]

Furthermore, the duty station or clinical ward played a crucial role in stress manifestation. Specifically, the Gynaecology Ward ($p = 0.002$) was reported as a highly significant stressor, likely due to the high-stakes nature of maternal and neonatal care and the emotional intensity of the department. The prevalence of stress in the obstetrics and gynaecology residents ranged from 46% to 86%, while factors were found to be long working hours, female gender and lack of support from colleagues and supervisors.[21] Furthermore, the Orthopaedic Ward ($p = 0.037$) was associated with Significant stress levels here, and may be linked to the physical demands of patient mobilisation and the management of acute trauma cases. In orthopaedic nurses, chronic fatigue is associated with long working hours, rotation of >44 weeks in the orthopaedic wards, while burnout was more common in the rotational nurses as compared to fixed nurses.[22]

The current study exhibits the limitations of being a single-centred study, which limits the study's generalizability. Further, being a cross-sectional study design, it lacks the merit of reporting causation. While the study focused on work-related factors, it does not interfere with personal and sociodemographic-related factors of stress, which can cause a confounding effect on stress and occupational stressors in healthcare workers.

Although the findings of this study highlight a critical need for institutional intervention. The high prevalence of moderate and severe stress across the board, particularly in private sectors and specific high-pressure wards, suggests that "individual resilience" is not enough. Healthcare administrators should prioritise the implementation of organisational support systems, such as

scheduled debriefing sessions, improved nurse-to-patient ratios, and more equitable shift rotations to mitigate the risk of burnout and ensure patient safety.

Future research should explore longitudinal data to determine the long-term psychological impacts of these stressors and evaluate the effectiveness of specific stress-reduction interventions within these high-risk clinical settings.

Conclusion

Work-related or occupational stress is common in nurses working in the tertiary care Pakistani hospitals. Prevalence of occupational stress in nurses has been estimated to 89%. Nurses in the private hospitals, in orthopedic and Gynaceology wards, are more prone to stress.

References

1. Saleh A. Nurses' Perceptions of Prognosis-Related Communication. Asian Pac J Cancer Prev. 2022;23(3):775–80. doi:10.31557/APJCP.2022.23.3.775
2. Jackson J, Maben J, Anderson JE. What are nurses' roles in modern healthcare? A qualitative interview study using interpretive description. J Res Nurs. 2022;27(6):504–16. doi:10.1177/17449871211070981 PubMed PMID: 36338926; PubMed Central PMCID: PMC9634242.
3. Riffat M. The Evolving Role of Nurses in Patient-Centered Care. NURSEARCHER J Nurs Midwifery Sci. 2023;03:01. doi:10.54393/nrs.v3i01.37
4. Taberna M, Moncayo FG, Jané-Salas E, Antonio M, Arribas L, Vilajosana E, et al. The Multidisciplinary Team (MDT) Approach and Quality of Care [Internet]. Vol. 10. 2020;10(85). doi:10.3389/fonc.2020.00085
5. Feng H, Zhang M, Li X, Shen Y, Li X. The Level and Outcomes of Emotional Labor in Nurses: A Scoping Review. J Nurs Manag. 2024;2024:5317359. doi:10.1155/2024/5317359 PubMed PMID: 40224865; PubMed Central PMCID: PMC11919068.
6. Khan S, Rahman A, Islam N, Khan IA, Maula F, Marriam A, et al. Prevalence of Perceived Stress among Nurse Interns in Teaching Hospitals of Khyber Pakhtunkhwa: Perceived Stress among Nurse Interns. NURSEARCHER J Nurs Midwifery Sci. 2024;02–6. doi:10.54393/nrs.v4i01.66
7. Narbona-Gálvez Á, García-Iglesias JJ, Ayuso-Murillo D, Fontán-Vinagre G, Gómez-Salgado J, Allande-Cussó R, et al. Stress in novice nurses in new work environments: a systematic review. Front Public Health. 2024;12:1463751. doi:10.3389/fpubh.2024.1463751 PubMed PMID: 39540096; PubMed Central PMCID: PMC11557553.
8. Maulik PK. Workplace stress: A neglected aspect of mental health wellbeing. Indian J Med Res. 2017;146(4):441–4. doi:10.4103/ijmr.IJMR_1298_17 PubMed PMID: 29434056; PubMed Central PMCID: PMC5819024.
9. Dziedzic B, Łodziana K, Marcysiak M, Kryczka T. Frontiers | Occupational stress and social support among nurses [Internet]. Vol. 13. 2025;13(25). doi:10.3389/fpubh.2025.1621312
10. Zhong X, Zeng Y, Peng L, Li X, Jia Y, Pan C, et al. Frontiers | Levels and related factors of occupational stress among nurses: hospital-based evidence from China, 2023 [Internet]. Vol. 15. 2025;15(24). doi:10.3389/fpsyg.2024.1471640

11. Basu D, Akter H, Gharami TM, Bashu T, Hasan MM. Stressors in work environments and related factors among nurses: A cross-sectional study. J Nurs Adv Clin Sci. 2025;2(3):153–9. doi:10.32598/JNACS.2412.1122
12. Ghanei Gheshlagh R, Mukhtar M, Asmat K, Sharafi S. The silent strain: a systematic review and meta-analysis on the prevalence of occupational stress among Pakistani nurses. BMC Nurs. 2025;24(1):347. doi:10.1186/s12912-025-02985-2 PubMed PMID: 40165217; PubMed Central PMCID: PMC11959948.
13. Aslam N, Mukhtar M, Masih S. Assessment of Workplace Difficulties Faced by Nurses Working in Public Sector Hospitals of Lahore. Pak J Health Sci. 2024;5(5):80–5. doi:10.54393/pjhs.v5i05.1646
14. Tsegaw S, Getachew Y, Tegegne B. Determinants of Work-Related Stress Among Nurses Working in Private and Public Hospitals in Dessie City, 2021: Comparative Cross-Sectional Study. Psychol Res Behav Manag. 2022;15(1):1823–35. doi:10.2147/PRBM.S372882
15. Abbas G, Sajjad A, Nadeem F, Nisa W, Zahid J. Comparison of Perceived Stress Levels among Private and Government Hospital Nurses. Res J Psychol. 2025;3:333–44. doi:10.59075/rjs.v3i1.71
16. Wang ML, Narcisse MR, Togher K, McElfish PA. Job Flexibility, Job Security, and Mental Health Among US Working Adults. JAMA Netw Open. 2024;7(3):e243439. doi:10.1001/jamanetworkopen.2024.3439 PubMed PMID: 38526492; PubMed Central PMCID: PMC10964112.
17. Mohanty A. Why the Occupational Stress is More for the Private Nurses than Government? Int J Indian Psychol. 2021;4(2). doi:10.25215/0903.107
18. Fatima M, Sherwani NUK, Singh V. Comparative analysis among doctors working in private and government hospitals in identifying and prioritizing essential stress factors during COVID-19- an AHP-TOPSIS approach. Intell Pharm. 2023;1(1):17–25. doi:10.1016/j.ipha.2023.04.005
19. Chen L, Wu L, Xia J, Cai X, Chen L. Frontiers | Gender differences of the association between work-related stressors and mental health among Chinese medical professionals: a nationwide cross-sectional study. Vol. 13. 2025;13(25):01–12. doi:10.3389/fpubh.2025.1561588
20. Amiard V, Telliez F, Pamart F, Libert JP. Health, Occupational Stress, and Psychosocial Risk Factors in Night Shift Psychiatric Nurses: The Influence of an Unscheduled Night-Time Nap. Int J Environ Res Public Health. 2022;20(1):158. doi:10.3390/ijerph20010158 PubMed PMID: 36612478; PubMed Central PMCID: PMC9819569.
21. Szcześniewska S, Zaręba K, Zgliczyński WS, Ciebiera M, Feduniw S. Occupational burnout among obstetrics and gynaecology residents: a systematic review. Front Public Health. 2025;13(1666659):01–10. doi:10.3389/fpubh.2025.1666659 PubMed PMID: 41211380; PubMed Central PMCID: PMC12591041.
22. Moosavian Hiaq SS, Jabbarzadeh Tabrizi F, Parvan K, Sarbakhsh P, Dickens G. Relationship between burnout and occupational fatigue exhaustion and recovery among orthopaedic nurses in Tabriz, Iran: a cross-sectional survey. BMJ Open. 2024;14(8):e084522. doi:10.1136/bmjopen-2024-084522