

ASSOCIATION BETWEEN JOB STRAIN AND OCCUPATIONAL STRESS AMONG NURSES IN PUBLIC HOSPITALS OF KARACHI

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ABSTRACT

As the largest professional group in the healthcare industry, nurses are essential to preserving patient safety, continuity of care, and the general standard of hospital services. Staff nurses' workload has a significant impact on both employee well-being and healthcare results because they are frequently the first point of continuous patient contact in public hospitals. To ascertain if workload and job-related stress were significantly correlated, a quantitative correlational research method was employed. 45 staff nurses were chosen for the sample using a non-probability convenience sampling method. A standardized self-administered questionnaire with questions about workload and stress at work as well as demographic data was used to gather data. According to descriptive data, the participants had a moderate workload (mean score of 6.4667 and standard deviation of 1.45540) and a moderate level of stress related to their jobs (mean score of 8.0000 and standard deviation of 1.34840). Workload and job-related stress had a weakly positive connection ($r = .174$) according to Pearson correlation analysis. However, because the p -value was .254, which was higher than 0.05, the connection was not statistically significant. As a result, the alternative hypothesis was not supported and the null hypothesis was kept. The results showed that workload was not a significant factor influencing stress among staff nurses in this sample, even if it did somewhat rise with job-related stress. The study came to the conclusion that additional elements like staffing level, shift duty, work environment, social support, salary satisfaction, and coping skills may also have an impact on nurses' job-related stress. To enhance nurses' well-being and raise the standard of patient care, hospital management is advised to increase staffing, guarantee equitable duty distribution, offer supportive supervision, and set up stress-management programs.

Keywords: Workload, Job-Related Stress, Staff Nurses, Public Hospitals, Karachi, Occupational Stress, Nursing Workload, Quantitative Correlational Study.

INTRODUCTION

As the largest professional group in the healthcare industry, nurses are essential to preserving patient safety, continuity of care, and

the general standard of hospital services Staff nurses' workload has a significant impact on both employee well-being and healthcare results

because they are frequently the first point of continuous patient contact in public hospitals (WHO, 2025). A fully supported nursing staff is crucial for attaining universal health coverage and bolstering health systems, especially in nations dealing with labor shortages and unequal distribution of health resources, according to the State of the World's Nursing Report 2025 (WHO, 2025). The physical, mental, emotional, and time-related demands placed on nurses during patient care, documentation, medicine administration, coordination, and emergency response tasks are referred to as workload in the nursing profession (Wang et al., 2025; Fayaz et al., 2023). Nurses may face job-related stress that impacts their motivation, health, and productivity when workloads exceed staffing, time, resources, and coping capacity (Wang et al., 2025).

According to recent research, a high workload, numerous patient demands, and a lack of resources can cause psychological stress reactions in nurses and have a detrimental effect on their conduct at work (Wang et al., 2025; Rehman, Lashari & Abbas, 2023). Because nurses work in settings that demand prompt decision-making, emotional stability, professional accountability, and ongoing patient monitoring, job-related stress is a significant occupational health risk in the nursing profession (Ghanei Gheshlagh et al., 2025).

Burnout, decreased job satisfaction, physical health issues, psychological anguish, and the desire to quit the nursing profession have all been connected to occupational stress among nurses (Ghanei Gheshlagh et al., 2025). According to a recent systematic review and meta-analysis on Pakistani nurses, occupational stress is very widespread in Pakistan, with moderate stress being the most common level and severe stress showing up more frequently in studies conducted in Karachi (Ghanei Gheshlagh et al., 2025; Fayaz et al., 2023). Because Karachi has sizable public tertiary institutions that treat a considerable number of patients from Karachi and the surrounding areas, this conclusion is especially significant for the city (Ghanei Gheshlagh et al., 2025). According to Ghanei Gheshlagh et al. (2025), the same review emphasized the

pressures that Pakistani nurses face, including lengthy shifts, a lack of resources, critical patient circumstances, and constant contact with patients and their families. These stressors are particularly pertinent to Karachi's public hospitals, where staff nurses' workloads may be exacerbated by patient volume, resource constraints, and staffing pressure (Ghanei Gheshlagh et al., 2025). Hospital workloads and stress levels may rise due to structural issues facing Pakistan's nursing staff (Aga Khan University & Pakistan Business Council, 2025). According to a 2025 study on Pakistan's nursing workforce, the country generates comparatively few nursing graduates and has a severe nursing shortage, with an estimated 5.2 nurses per 10,000 people (Aga Khan University & Pakistan Business Council, 2025). According to the same analysis, among the difficulties experienced by nurses who continue to work in Pakistani hospitals are low pay, few perks, long hours, and heavy workloads (Aga Khan University & Pakistan Business Council, 2025). Due to a lack of workers, nurses may be given more patients and responsibilities, which might lead to a situation where stress at work is directly caused by workload (Aga Khan University & Pakistan Business Council, 2025). Because they frequently serve low-income populations, emergency cases, and rapid patient turnover with inadequate people and material resources, public hospitals may be particularly vulnerable (Aga Khan University & Pakistan Business Council, 2025). In order to comprehend how local staffing and service challenges impact nurses' occupational well-being, it is imperative to examine workload and stress among staff nurses in Karachi's public hospitals (Ghanei Gheshlagh et al., 2025). The connection between nursing workload and stress at work is also supported by international research (Syamsuddin et al., 2025). Increased workload was linked to higher levels of stress among nurses, according to a quantitative correlational study conducted among emergency care nurses (Syamsuddin et al., 2025).

Because it validates the use of a correlational design to examine the statistical link between workload and job-related stress among nurses, this data is helpful for the current study (Syamsuddin et al., 2025). Perceived workload

and occupational stress among nurses were found to be strongly positively associated in another cross-sectional investigation, indicating that nurses with higher perceived workloads also reported higher levels of stress (Wang et al., 2025). Additionally, Wang et al. (2025) found that occupational stress moderated the association between bad job outcomes and perceived workload, indicating that stress may be a mechanism by which workload influences nursing practice. These results show that workload affects nursing staff's psychological and occupational health in addition to being an administrative problem (Wang et al., 2025). Because stressed nurses may experience weariness, diminished focus, emotional depletion, and trouble finishing all necessary nursing tasks, workload-related stress can also have an impact on patient care (Wang et al., 2025). According to Wang et al. (2025), presenteeism and missing nursing care were associated with occupational stress. This suggests that although stressed nurses may be physically present at work, their ability to perform at their best may be compromised. Another study conducted in 2025 found that ICU night shift nurses experienced moderate to high levels of work-related stress, with workload ranking among the most stress-related factors (Reshia et al., 2025). This is significant since emergency, critical care, medical, and surgical units are all part of Karachi's public hospitals, where staff nurses may deal with high-acuity patients and challenging shift patterns (Reshia et al., 2025). Thus, nurses' well-being as well as the security and standard of patient care may be impacted by work-related stress (Ghanei Gheshlagh et al., 2025; Zehra, Lashari & Naz, 2026). Excessive workload and stress can increase the likelihood of mistakes, delayed care, poor communication, and impaired professional performance because nurses oversee providing direct bedside care (Khan, Lashari & Iqbal., 2022; Wang et al., 2025). The premise that job demands lead to stress when they surpass available resources, support, staffing, and coping capacity is the theoretical foundation for this study (Wang et al., 2025). The quantity of patients, complexity of treatment, documentation duties, emotional labor, and time pressure throughout each shift make workload a significant job requirement

for nurses (Wang et al., 2025). Workload may be reasonable for nurses if they have enough staff, supplies, managerial assistance, and downtime, but it may become stressful if these resources are scarce (Aga Khan University & Pakistan Business Council, 2025). Because organizational constraints may make it more difficult for nurses to properly handle high patient care needs, this link is particularly crucial in public hospitals (Aga Khan University & Pakistan Business Council, 2025; Buriro et al., 2024). Since the goal is to ascertain whether workload and job-related stress are statistically connected among staff nurses rather than to evaluate an intervention or demonstrate causality, a correlational study methodology is suitable for this topic (Syamsuddin et al., 2025; Buriro et al., 2024).

Because workload and job-related stress may be quantified using standardized questionnaires and examined using statistical techniques like regression and correlation, a quantitative approach is also appropriate (Syamsuddin et al., 2025). Because they serve a wide range of patients, including those who would not be able to pay for private care, public hospitals in Karachi are crucial healthcare facilities (Buriro et al., 2024; Ghanei Gheshlagh et al., 2025). High patient loads, rotating shifts, emergency admissions, staffing shortages, and administrative duties can all add to the workload of staff nurses in these institutions (Ghanei Gheshlagh et al., 2025). While research has been done on occupational stress among Pakistani nurses, new data shows that it varies by city and that Karachi may have a disproportionately high rate of severe occupational stress (Ghanei Gheshlagh et al., 2025). This necessitates targeted research in Karachi's public hospitals to determine whether staff nurses' job-related stress and workload are substantially correlated (Ghanei Gheshlagh et al., 2025). Hospital administrators, nurse managers, and legislators can create staffing, scheduling, and support plans that lessen avoidable stress among nurses by having a better understanding of this link (Buriro et al., 2024; WHO, 2025). Thus, the current quantitative correlational study will investigate how workload affects job-related stress among staff nurses employed by Karachi's public hospitals (WHO, 2025).

Problem Statement:

According to recent research, Pakistani nurses face high levels of occupational stress, with Karachi exhibiting a significant burden of severe stress in the studies that are currently accessible (Ghanei Gheshlagh et al., 2025). Job-related stress is a major worry for Pakistani nurses. Due to patient traffic, staff shortages, lengthy duty hours, and scarce resources, public hospitals in Karachi may have a high burden for their staff nurses (Aga Khan University & Pakistan Business Council, 2025). Pakistan's nursing shortage, low nurse density, heavy workload, and challenging working conditions may put nurses under more stress and make them more susceptible to stress at work (Aga Khan University & Pakistan Business Council, 2025).

There is still a need for up-to-date quantitative correlational evidence that is primarily focused on staff nurses in Karachi's public hospitals, despite the fact that worldwide research indicate a favorable association between workload and job stress among nurses (Syamsuddin et al., 2025). Hospital administrators and legislators may not completely comprehend the relationship between workload and job-related stress among nurses in Karachi's public-sector hospitals in the absence of local evidence (Ghanei Gheshlagh et al., 2025). Thus, this study uses a quantitative correlational research approach to ascertain the link between workload and job-related stress among staff nurses in Karachi's public hospitals (Syamsuddin et al., 2025).

Research Objective

To find the correlation between job strain and occupational stress among staff nurses employed in Karachi's public hospitals.

Research Question

What is the relationship between staff nurses' job strain and occupational stress at work in Karachi's public hospitals?

Hypothesis:

H0: There is no statistically significant correlation between job strain and occupational stress among nurses employed in Karachi.

H1: There is no statistically significant correlation between job strain and occupational stress among nurses employed in Karachi.

Literature review

Because nurses manage clinical, emotional, administrative, and organizational obligations while continuously providing patient care, nursing workload and job-related stress have emerged as significant areas of nursing research (Wang et al., 2025). The number of patients allocated to nurses, the complexity of patient conditions, documentation responsibilities, time constraints, medicine administration, communication with doctors, and emotional interactions with patients and families are all considered aspects of nursing workload (Ren et al., 2025). Workload can become a significant occupational stressor when these duties surpass nurses' available time, staffing support, and coping capabilities (Wang et al., 2025). According to recent research, nurses play a crucial role in patient safety and the quality of healthcare, but their conduct can be impacted by psychological strain brought on by severe workloads, limited resources, and numerous patient demands (Buriro et al., 2024). As a result, workload affects nurses' psychological and occupational health in addition to staffing and management (Wang et al., 2025).

The physical and psychological strain that arises when employment expectations surpass an individual's capacity or resources to manage such demands is referred to as occupational or job-related stress (Buriro et al., 2024; Wang et al., 2025). Long work hours, rotating shifts, emotional demands, emergency circumstances, staff shortages, inadequate managerial support, and insufficient resources are all frequently associated with job-related stress in nursing (Ghanei Gheshlagh et al., 2025). According to a systematic review and meta-analysis of Pakistani nurses, occupational stress is a major issue that has an impact on nurses' emotional and physical well-being, job satisfaction, and patient care quality (Buriro et al., 2024). According to the same review, Pakistani nurses were more likely to experience moderate occupational stress, although severe stress seemed to be more common in Karachi than in other cities that were included in the analysis (Buriro et al., 2023; Ghanei Gheshlagh et al., 2025).

These results demonstrate that Karachi is a crucial location for researching nurses' job-related stress, particularly in public hospitals where patient volume and resource constraints may be severe (Ghanei Gheshlagh et al., 2025). Workload and job-related stress among nurses are strongly correlated, according to recent correlational research (Syamsuddin et al., 2025). In a quantitative correlational cross-sectional study of emergency room nurses, Syamsuddin et al. (2025) discovered a significant positive correlation between workplace stress and workload. With a Spearman correlation value of $r = 0.890$ and $p < 0.05$, their study found a link between increased workload and greater job stress (Syamsuddin et al., 2025). Because it supports the use of a quantitative correlational approach to investigate whether workload and stress move together among staff nurses, this finding is extremely pertinent to the current study (Syamsuddin et al., 2025). Because they frequently deal with urgent patient requirements, erratic workloads, and intense emotional pressure, emergency and public hospital settings are particularly crucial for nurses (Syamsuddin et al., 2025).

Additionally, Wang et al. (2025) offered compelling evidence that occupational stress among nurses is strongly correlated with perceived workload. Perceived workload and occupational stress were significantly positively correlated in their cross-sectional study, meaning that nurses who felt they had a greater workload also reported feeling more stressed (Wang et al., 2025). The study also discovered that the association between perceived workload and missed nursing care was mediated by occupational stress, indicating that workload may affect care outcomes through stress reactions (Wang et al., 2025). Additionally, Wang et al. (2025) found that occupational stress mediated the association between presenteeism and perceived workload, suggesting that stress related to workload may lower nurses' productivity even when they are physically present at work. These results imply that workload may have an impact on nurses' emotional health as well as the standard and comprehensiveness of nursing care (Wang et al., 2025). Because nurses must continuously

monitor patients, evaluate clinical data, set priorities, and make decisions under time constraints, mental burden is another significant aspect of nursing workload (Ren et al., 2025). Mental workload, according to Ren et al. (2025), is the mental activity necessary to finish nursing work, encompassing task demands, time constraints, effort, and performance requirements. Ren et al. (2025) discovered that nurses had a comparatively high level of mental workload in a cross-sectional research of 590 clinical nurses. The same study revealed a negative correlation between mental workload and both positive coping style and perceived social support, indicating that coping resources and support may lessen the burden of workload (Ren et al., 2025).

These results are significant for hospital nursing management because they show that psychological resources available to nurses have an impact on workload in addition to job volume (Ren et al., 2025). Stress experiences among nurses are also significantly influenced by social and organizational support (Dziedzic et al., 2025). The majority of nurses reported moderate levels of perceived work stress, according to Dziedzic et al.'s (2025) study of 321 nurses. According to their findings, reported social support and perceived stress at work had a statistically significant negative connection, implying that lower stress was linked to more support (Dziedzic et al., 2025). Additionally, the study discovered that social support and stress were linked to nurses' age and workplace environment, indicating that organizational context affects nurses' psychological health (Dziedzic et al., 2025).

According to Dziedzic et al. (2025), there is evidence to support the idea that nurses at public hospitals may feel stress in different ways based on staffing patterns, leadership support, the work environment, and available resources. Another significant factor contributing to nurses' job-related stress is shift work and critical care responsibilities (Reshia et al., 2025). In a cross-sectional study of 362 ICU night shift nurses, Reshia et al. (2025) discovered that over 60% of participants experienced moderate to high levels of stress at work. Workload, patient and family interactions, and supervisory concerns were associated with the greatest stress levels in that

study (Reshia et al., 2025). The authors came to the conclusion that interpersonal difficulties and a heavy workload were the primary causes of work-related stress among ICU night-shift nurses (Reshia et al., 2025). Because nurses in emergency, medical, surgical, and intensive care units may also deal with a strong workload, emotionally taxing patient circumstances, and shift-related exhaustion, these findings are pertinent to public hospitals in Karachi (Reshia et al., 2025).

In the nursing profession, workload and stress at work are closely linked to burnout (Zhang et al., 2026). In a cross-sectional study of 3,654 registered nurses, Zhang et al. (2026) investigated the connection between aspects of job burnout and occupational stress. Zhang et al. (2026) found a positive correlation between emotional tiredness and depersonalization among nurses and all five occupational stress aspects. Accordingly, nurses are more prone to experience emotional weariness and alienated attitudes toward work as occupational stress grows (Zhang et al., 2026). The study is significant for the current topic since staff nurses may experience burnout as a result of prolonged job stress and heavy workload (Zhang et al., 2026). The link between work stress and unfavorable occupational outcomes is also supported by research conducted among specialist nursing groups (Wu et al., 2025).

In their study of radiology nurses, Wu et al. (2025) discovered a favorable correlation between burnout and occupational stress. According to their research, radiology nurses were more likely to experience burnout due to increased workload, staffing shortages, overtime, and frequent duty changes (Wu et al., 2025). The results demonstrate that workload strain can lead to stress and worse occupational well-being even in specialist nursing units (Wu et al., 2025). This lends credence to the more general claim that stress brought on by workload is a nursing issue that affects all hospital departments (Wu et al., 2025). Because public hospitals in Karachi frequently have limited resources and a high patient demand, evidence from low- and middle-income nations is particularly pertinent (Boasiako et al., 2026). In a comparative cross-sectional research of Ghanaian government and private hospitals, Boasiako et al. (2026) discovered that nurses in

both sectors experienced significant levels of occupational stress. According to the study, nurses working in government hospitals had more trouble managing interruptions and emotional detachment, which may indicate that public-sector nurses deal with more stress at work (Boasiako et al., 2026).

Additionally, the authors highlighted the necessity for organizational support by pointing out that stress among nurses can negatively impact both nurse well-being and patient care (Boasiako et al., 2026). Because Karachi's public hospitals may experience comparable workload-related stressors, such as disruptions, high patient turnover, and scarce personnel resources, this evidence is helpful for the current study (Boasiako et al., 2026). Heavy workloads, shift work, insufficient staffing, role ambiguity, a lack of managerial support, and workplace violence are all typical factors that contribute to occupational stress among nurses, according to systematic review data (Jaradat et al., 2025). According to Jaradat et al. (2025), burnout, emotional weariness, turnover intention, and detrimental effects on patient safety are among the personal and systemic repercussions of work stress among nurses. The evaluation highlighted the need for multilevel interventions to lower stress, particularly in hospital settings with limited resources (Jaradat et al., 2025). Because public hospitals may represent the kind of resource-constrained environment where workload and stress require systematic inquiry, this reinforces the necessity for local research in Karachi (Jaradat et al., 2025).

Nurse managers can create evidence-based workload distribution, staffing, and support strategies by having a better understanding of the connection between workload and job-related stress (Jaradat et al., 2025). Workforce shortages and challenging working circumstances are linked to the problem of nursing workload in Pakistan (Ghanei Gheshlagh et al., 2025). Long shifts, a lack of resources, urgent patient problems, and frequent contact with patients and families are common experiences for Pakistani nurses, all of which can lead to increased occupational stress (Ghanei Gheshlagh et al., 2025). The systematic study on Pakistani nurses revealed that severe occupational stress was more prevalent in

Karachi than in other areas included in the analysis, hence Karachi needs particular attention (Ghanei Gheshlagh et al., 2025). Because of this, public hospitals in Karachi are an important location for researching the relationship between staff nurses' workload and stress (Ghanei Gheshlagh et al., 2025). By offering contemporary quantitative correlational evidence on the relationship between workload and job-related stress in this local setting, the current study can advance nursing knowledge (Syamsuddin et al., 2025). Workload is consistently linked to job-related stress, mental workload, burnout, missed care, presenteeism, and decreased occupational well-being among nurses, according to the reviewed literature (Wang et al., 2025). Workload-related stress is prevalent in emergency rooms, intensive care units, radiology units, general clinical nursing, public hospitals, and national nursing populations, according to recent studies from 2025 and 2026 (Reshia et al., 2025; Syamsuddin et al., 2025; Wu et al., 2025; Zhang et al., 2026). Additionally, research indicates that organizational resources, personnel support, positive coping strategies, emotional intelligence, and social support can mitigate or lessen the negative impacts of stress and workload (Dziedzic et al., 2025; Ren et al., 2025; Wang et al., 2025). However, there hasn't been much recent research focusing on staff nurses in Karachi's public hospitals, despite mounting evidence from around the world (Ghanei Gheshlagh et al., 2025). In order to ascertain if workload and job-related stress are substantially correlated among staff nurses employed in Karachi's public hospitals, a quantitative correlational study is warranted (Syamsuddin et al., 2025).

Research methodology

Research Design

This study utilized quantitative correlational research design to study the relationship between workload and job-related stress among staff nurses working in public hospitals of Karachi. The use of a quantitative design was appropriate as the study collected numerical data from the participants through structured questionnaires and the data were analyzed through statistical methods. The correlational

design was appropriate as the aim of the study was to find out if there was a statistically significant relationship between the nurses' workload and their level of job related stress. This design did not manipulate any variable but measured the naturally occurring relationship between independent variable of workload and the dependent variable of job-related stress.

Research Instrument

The research instrument used in this study was a structured self-administered questionnaire with three sections. The first section was to collect demographic data like age, gender, qualification, years of experience, duty shift, hospital unit and working hours. The second part evaluated nurses' workload by means of a standardized workload scale or workload-related questionnaire items. The third section measured occupational stress with a standardized occupational stress or nursing stress scale. The questionnaire used a Likert scale format, ranging from strongly agree to strongly disagree, to obtain quantifiable responses from the staff nurses. The structured questionnaire was appropriate as it provided the opportunity to collect consistent, numerical and comparable data from the participants.

Sampling Technique

In this study, a non-probability convenience sampling technique was adopted to recruit staff nurses from public hospitals of Karachi. Convenience sampling was appropriate as participants were selected on the basis of their availability, willingness to participate and meeting the inclusion criteria. The study population was comprised of registered staff nurses with direct patient-care responsibilities working in public hospitals of Karachi. Excluded were nurses on leave, in administrative-only positions, and those unwilling to participate in the study. The sampling technique was convenient for hospital-based research because of the different shifts and units nurses worked, making random selection difficult within limited time and resources.

Ethical Consideration

Ethical approval was obtained from the concerned institutional review board or ethics

committee before data collection. Permission was also taken from the administration of selected public hospitals of karachi. Participants were informed of the purpose of the study, that they were taking part voluntarily, and that they could withdraw at any time without penalty. All participants provided written informed consent before completing the questionnaire. To ensure confidentiality and anonymity non collection of names and personal identification details was

done. The data collected was used for research purposes only and was kept secured.

Data Analysis:

Data was analyzed using SPSS. First of all, descriptive test was run to see the clear status of the data after that inferential statistics was applied and person correlation test was run to test the hypothesis.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	45	1	3	1.89	.714
Gender	45	1	2	1.24	.435
Qualification	45	1	4	1.98	1.118
Profession	45	1	4	1.29	.815
Job Strain	45	5.00	9.00	6.4667	1.45540
Occupational Stress	45	6.00	11.00	8.0000	1.34840
Valid N (listwise)	45				

Table 1 gives the details of descriptive test. Based on a total sample of 45 staff nurses, Table 1 displays the descriptive statistics of the primary research variables and demographic characteristics. The majority of participants fell into the lower to medium age categories, as indicated by the age variable's minimum score of 1 and highest score of 3, mean of 1.89, and standard deviation of 0.714. With a mean of 1.24 and a standard deviation of 0.435, gender had a minimum score of 1 and a maximum score of 2, indicating that the majority of participants fell into one gender group. With a mean of 1.98 and a standard deviation of 1.118, qualification scores ranged from 1 to 4, indicating that individuals' educational backgrounds varied. With a mean score of 1.29 and a standard deviation of 0.815, the profession had a minimum score of 1 and a maximum score of 4, indicating that the majority of respondents fell into one major

professional area, while there was considerable fluctuation.

Workload scores varied from 5.00 to 9.00, with a mean score of 6.4667 and a standard deviation of 1.45540, according to the descriptive statistics for the primary study variables. This suggests that the workload for staff nurses was moderate. With a mean score of 8.0000 and a standard deviation of 1.34840, the stress scores varied from 6.00 to 11.00, indicating that the participants also encountered a considerable degree of work-related stress. The overall results indicate that most nurses experienced workload and stress at a moderate level, while the standard deviation values for these variables show some heterogeneity in the responses. Overall, the table indicates that there were 45 valid responses in the sample and that staff nurses in Karachi's public hospitals reported significant workload and stress at work.

Correlations

		workload	Stress
Job Strain	Pearson Correlation	1	.174
	Sig. (2-tailed)		.254
	N	45	45
Occupational Stress	Pearson Correlation	.174	1
	Sig. (2-tailed)	.254	
	N	45	45

The Pearson correlation study between 45 staff nurses' workload and job-related stress is shown in Table 2. With a Pearson correlation value of $r = .174$, the outcome demonstrated a positive association between workload and stress. This suggests that individuals' levels of job-related stress tended to rise in tandem with their workload. However, the relationship was weak, meaning that in this group, there was only a slight positive correlation between workload and stress.

The conventional significance level of 0.05 is exceeded by the significance value of $p = .254$. This indicates that there was no statistically significant correlation between workload and job-related stress. As a result, the alternative hypothesis was not supported and the null hypothesis was retained. Workload was not a statistically significant predictor of job-related stress among the 45 staff nurses in this study, despite the results indicating a positive association between workload and stress. Nurses' stress levels may have also been impacted by other elements such as duty shifts, staffing numbers, work environments, social support, pay, and coping skills.

Discussion:

The current study looked at the connection between staff nurses' job-related stress and workload in Karachi's public hospitals. According to the descriptive results, nurses had a moderate workload (mean score of 6.4667 and standard deviation of 1.45540) and a moderate level of stress connected to their jobs (mean score of 8.0000 and standard deviation of 1.34840). These results show that while performing their hospital tasks, staff nurses were subjected to discernible job pressures and stress. According to similar recent research (Dziedzic et al., 2025; Ghanei Gheshlagh et al., 2025; Ren et al., 2025; Wang et al., 2025), nurses frequently feel occupational stress as a result of workload, patient-care responsibilities, time pressure, shift duties, limited resources, and emotional demands. According to Ghanei Gheshlagh et al. (2025), occupational stress among nurses in Pakistan has also been recognized as a significant issue that may have an impact on their physical and mental health, job satisfaction, and the standard of patient care.

With a Pearson correlation value of $r = .174$, the correlation results indicated a weakly positive association between workload and job-related stress. This indicates that staff nurses saw a minor rise in stress as their workload increased. However, because the p -value was .254, which is higher than 0.05, the connection was not statistically significant. As a result, the alternative hypothesis was not supported and the null hypothesis was kept. The positive direction of the connection, despite its weakness and lack of significance, is in line with earlier research demonstrating that workload is typically linked to increased stress levels among nurses (Reshia et al., 2025; Syamsuddin et al., 2025; Wang et al., 2025). The 45-person sample size or the fact that stress among nurses is impacted by a number of other factors, including staffing level, duty shift, social support, coping ability, salary satisfaction, leadership support, and work environment, could be the cause of the non-significant result (Boasiako et al., 2026; Dziedzic et al., 2025; Ren et al., 2025).

Overall, the study discovered that nurses had moderate levels of workload and job-related stress; however, there was no significant correlation between workload and stress in this particular group. This implies that while workload may be a contributing factor to stress, there may be other factors influencing job-related stress among staff nurses in Karachi's public hospitals. According to earlier studies, improper management of occupational stress can result in burnout, missing nursing care, presenteeism, emotional weariness, and lower patient care quality (Wang et al., 2025; Wu et al., 2025; Zhang et al., 2026). Thus, equitable duty distribution, sufficient staffing, supportive supervision, relaxation periods, and stress-reduction techniques should be the main priorities of hospital administrators and nurse managers. To further understand job-related stress among nurses, future research should use a bigger sample size and look at additional characteristics such as shift pattern, unit type, social support, coping style, and work environment (Ghanei Gheshlagh et al., 2025; Ren et al., 2025; Wang et al., 2025).

Conclusion:

According to the study's findings, staff nurses in Karachi's public hospitals had a considerable amount of workload and stress at work. Workload and job-related stress had a weakly positive association, according to the correlation data, meaning that stress somewhat rose as workload increased. However, because the p-value was higher than 0.05, the link was not statistically significant. As a result, the alternative hypothesis was not supported and the null hypothesis was kept.

The positive direction of the association implies that workload may still contribute to nurses' stress to some degree, even though it was not found to be a significant factor in job-related stress in this study. The results also suggest that other factors, including staffing level, duty shifts, work environment, social support, salary satisfaction, leadership style, and coping skills, may have an impact on nurses' job-related stress. As a result, hospital administration should concentrate on enhancing working conditions, guaranteeing equitable responsibility division, supplying sufficient staffing, and helping nurses manage their stress.

Overall, this study emphasizes how crucial it is to keep an eye on staff nurses' workload and stress levels at work in public hospitals. To have a better understanding of the factors that lead to job-related stress among nurses in Karachi, more hospitals and a bigger sample size should be included in future study.

Recommendations:

- Hospital administration should ensure fair duty distribution so that workload is balanced among staff nurses.
- Public hospitals should improve staffing levels to reduce excessive workload and prevent job-related stress.
- Nurse managers should provide supportive supervision and encourage open communication with staff nurses.
- Hospitals should arrange stress-management programs, counseling sessions, and relaxation activities for nurses.

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