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Original Article

Assessing Knowledge of Occupational Stress and Associated Risk Factors Among Nurses of ED and ICU at Jinnah Hospital

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ABSTRACT

Background: Emergency department (ED) and intensive care unit (ICU) nurses encounter work demands that may affect their psychological well-being. Their understanding of occupational stress and recognition of potential stressors are relevant to workplace education and support. Objective: To assess knowledge of occupational stress and describe perceived occupational stressors and coping practices among ED and ICU nurses at Jinnah Hospital, Lahore. Methods: A descriptive cross-sectional survey was conducted between October and December 2025. Forty-four registered nurses with at least six months of hospital work experience were enrolled through convenience sampling. A structured questionnaire assessed demographic and work-related characteristics, five knowledge questions, selected items adapted from the Expanded Nursing Stress Scale, and coping practices. Descriptive statistics were produced in SPSS version 27. Results: Twenty-seven nurses (61.4%) worked in the ICU and 17 (38.6%) in the ED; 35 (79.5%) were women. Reported knowledge categories were moderate in 27 (61.4%), poor in nine (20.5%) and good in eight (18.2%). All 44 respondents had heard of occupational stress, whereas only eight (18.2%) selected the comprehensive response to questions about its causes and effects. Dealing with patient death or dying was rated very stressful by 35 (79.5%). Twenty-seven nurses (61.4%) worked more than eight hours per day. All respondents reported using a stress-management measure and endorsed a need for training; talking with others was the most frequently selected coping method (27/44, 61.4%). Conclusion: In this small, non-probability sample, awareness of occupational stress was universal, but responses suggested incomplete recognition of its multiple causes and consequences. The findings support further assessment of educational and organizational support needs without establishing causal relationships. Keywords: occupational stress; nurses; intensive care units; emergency departments; knowledge; coping behavior; Pakistan.

INTRODUCTION

Occupational stress represents an important occupational health concern among healthcare professionals, particularly nurses whose responsibilities involve continuous patient monitoring, complex clinical decision-making, substantial emotional demands, and sustained interpersonal interaction. It develops when occupational demands exceed, or are perceived to exceed, an individual's available resources, coping capacity, or control over working conditions. Nursing professionals frequently encounter high workloads, unpredictable clinical situations, inadequate staffing, long working hours, interpersonal conflict, and exposure to patient suffering and death. These

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demands may be especially pronounced in emergency departments (EDs) and intensive care units (ICUs), where clinical deterioration can occur rapidly and decisions often have immediate consequences for patient care. An integrative review by Caulfield et al. identified interacting organizational, interpersonal, and clinical factors preceding occupational distress among emergency nurses, emphasizing that distress cannot be adequately understood through workload alone (1).

The occupational burden experienced by nurses in high-acuity environments has received increasing attention. A systematic review and meta-analysis by Lin et al. examined burnout among physicians and nurses working in ICUs and EDs, reinforcing the importance of professional well-being in these demanding clinical settings (2). Similarly, Ramírez-Elvira et al., in a systematic review and meta-analysis of ICU nurses, identified substantial variation in burnout and its associated occupational characteristics across studies (3). Although occupational stress and burnout are closely related, they are not interchangeable. Occupational stress concerns the individual's response to work demands, whereas burnout is an occupational phenomenon associated with prolonged, inadequately managed workplace stress. Consequently, knowledge of occupational stress should be considered separately from measured psychological distress, burnout, and occupational functioning.

The working environments of EDs and ICUs present overlapping but distinguishable occupational challenges. Emergency nurses frequently manage high patient turnover, unpredictable presentations, time-sensitive interventions, distressed relatives, and competing priorities. In contrast, ICU nurses commonly provide continuous care to critically ill patients requiring advanced monitoring, complex therapeutic interventions, and prolonged clinical vigilance. Both departments require effective interdisciplinary communication, technical competence, emotional regulation, and adaptation to changing patient conditions. Repeated exposure to death, dying, uncertainty regarding treatment, and ethically complex situations may increase emotional demands. The consequences of such exposure may be influenced by professional experience, institutional support, workload distribution, and available coping resources rather than by clinical exposure alone (1–3).

Evidence from Pakistan demonstrates the local relevance of these concerns. Saher et al. investigated occupational stress among critical-care nurses and highlighted the importance of the clinical working environment and occupational demands (4). Khan et al. examined stress and associated factors among nurses working in tertiary-care hospitals in Peshawar, demonstrating continuing interest in organizational and occupational determinants of nursing stress within Pakistani healthcare institutions (5). Ullah et al. also explored the causes and effects of stress among ICU nurses at a government hospital in Islamabad, including practical concerns regarding stress-management strategies (6). Research undertaken in Lahore has similarly addressed occupational stress among nurses in tertiary-care settings, supporting the relevance of investigating workplace experiences within the city's healthcare system (7). Differences in sampling, questionnaires, clinical settings, and outcome definitions restrict direct comparison of prevalence estimates.

Occupational stress among nurses is multidimensional, incorporating clinical, organizational, interpersonal, and emotional components. The Expanded Nursing Stress Scale (ENSS), developed and evaluated by French et al., provides a conceptual and measurement framework encompassing stressors related to death and dying, conflict with physicians, inadequate emotional preparation, problems with peers and supervisors, workload, uncertainty concerning treatment, and difficulties involving patients and their families (8). These domains demonstrate that occupational stress cannot be reduced to a single workplace characteristic. They also emphasize the distinction between identifying a potentially stressful working condition and establishing the intensity or consequences of the stress experienced by an individual nurse.

The relationship between occupational well-being and patient-care outcomes provides an additional justification for addressing workplace stress. Li et al., in a systematic review and meta-analysis published in JAMA Network Open, examined associations between nurse burnout and patient safety, patient satisfaction, and quality of care (9). An earlier systematic review by Jun et al. similarly investigated relationships between nurse burnout and patient and organizational outcomes (10). These studies support the broader importance of nursing well-being for healthcare quality. However, evidence concerning burnout-related outcomes should not be interpreted as demonstrating that nurses with limited knowledge of occupational stress necessarily deliver poorer care. Such a relationship would require direct investigation using appropriately validated knowledge and patient-care measures.

Working hours and shift arrangements constitute another important dimension of the occupational environment. Continuous healthcare delivery requires staffing across daytime, evening, and nighttime periods, frequently involving rotating shifts and extended working hours. A systematic review by Rosa et al. examined relationships between shift work and nurses' health, highlighting concerns relating to circadian disruption and associated health consequences (11). Membrive-Jiménez et al. further synthesized evidence concerning burnout and sleep problems among nurses, identifying an association between these constructs (12). These findings suggest that workplace education should address the potential consequences of prolonged working hours and irregular schedules while recognizing that the presence of rotating shifts does not independently establish occupational distress.

Coping strategies and access to professional support represent complementary aspects of occupational stress management. Individual approaches may include emotional regulation, relaxation, rest, physical activity, problem-solving, and seeking assistance from colleagues or family members. Nevertheless, workplace stress cannot be addressed exclusively through individual coping strategies when organizational conditions contribute substantially to occupational demands. Cohen et al., in a systematic review of workplace interventions among nurses, physicians, and allied healthcare professionals, identified considerable diversity in interventions intended to improve well-being and reduce burnout (13). The World Health Organization's guidelines on mental health at work similarly emphasize the importance of organizational interventions, supportive management, worker training, and appropriate mental-health support (14).

Despite increasing research on the prevalence, determinants, and consequences of occupational stress among nurses, an important distinction remains between experiencing occupational stress and understanding its multiple causes, consequences, and possible management approaches. Awareness of the term occupational stress does not necessarily indicate comprehensive understanding of its physical, psychological, organizational, and patient-care implications. Likewise, recognizing a workplace stressor does not establish the presence of clinically significant stress, and reporting the use of a coping strategy does not demonstrate its effectiveness.

Within Pakistani tertiary-care hospitals, institution-specific information about nurses' understanding of occupational stress may complement existing research on perceived stress and burnout. Such information may help identify educational priorities and areas requiring further workplace assessment, particularly in high-acuity departments. Accordingly, the present study aimed to assess knowledge of occupational stress and describe perceived occupational stressors and self-reported coping practices among nurses working in the emergency department and intensive care unit of Jinnah Hospital, Lahore, Pakistan.

MATERIALS AND METHODS

Study design and setting

A hospital-based descriptive cross-sectional study was conducted at Jinnah Hospital, Lahore, Pakistan, between October and December 2025. The study focused on registered nurses working in the emergency department and intensive care unit, two clinical settings characterized by time-sensitive care, continuous monitoring, and frequent exposure to critically ill patients. A cross-sectional approach was appropriate for describing participants' knowledge, occupational characteristics, perceived stressors, and reported coping practices at a defined period. The study did not involve an intervention, follow-up assessment, or experimental allocation. The individual nurse constituted the unit of analysis. Information was collected through a structured questionnaire. The descriptive scope was maintained in reporting and interpreting its findings, consistent with established principles for transparent reporting of observational research described in the STROBE statement (15).

Study population and sampling

The study included 44 registered nurses working in the ED and ICU at Jinnah Hospital. Participants were recruited using non-probability convenience sampling according to their availability and willingness to participate during data collection. Eligible participants were registered nurses employed at the hospital who had at least six months of hospital work experience and provided informed consent. Nurses who declined participation or were unavailable during data collection were not enrolled. The study protocol also specified exclusion of nurses with severe psychological or mental-health conditions that could affect questionnaire responses. The analyzed sample comprised 27 nurses working in the ICU and 17 working in the ED. Because recruitment was based on convenience

sampling, the sample was not intended to provide probability-based representation of all nurses working in either department or across tertiary-care hospitals in Lahore.

Data collection instrument

Information was collected using a structured questionnaire comprising sections addressing sociodemographic characteristics, occupational conditions, knowledge of occupational stress, perceived occupational stressors, and coping practices. The questionnaire combined categorical questions addressing knowledge and workplace characteristics with selected items adapted from the Expanded Nursing Stress Scale.

Sociodemographic and occupational variables

The questionnaire recorded participants' age, gender, marital status, educational attainment, work experience, parental status, and monthly salary category. Work-related information included clinical department, daily working hours, fixed or rotating shifts, additional responsibilities, and perceived role ambiguity. These variables were included to describe the professional and occupational characteristics of the study population, without implying that any characteristic was independently established as a predictor of occupational stress.

Assessment of knowledge regarding occupational stress

Knowledge was assessed using five questions covering awareness, definition, causes, consequences, and potential implications for patient care. The first question established whether respondents had previously heard of occupational stress. The second assessed understanding of its meaning, including physical, emotional, and work-related components. Subsequent questions examined recognition of potential occupational causes, including workload, prolonged working hours, and inadequate support, and possible consequences such as burnout, health problems, and impaired work performance. The final question assessed whether participants believed occupational stress could affect patient care. Relevant multiple-choice questions included a comprehensive response incorporating all listed causes or consequences. The questionnaire also yielded an overall knowledge classification of good, moderate, or poor, which was retained in the descriptive analysis. The knowledge questions addressed recognition of selected occupational stress concepts rather than directly measuring experienced stress intensity or burnout. Knowledge categories were interpreted as questionnaire-based classifications rather than independently established indicators of occupational competence.

Assessment of perceived occupational stressors

Perceived occupational stressors were assessed through eight selected questions adapted from the domains of the ENSS, originally developed by French et al. to evaluate nurses' perceptions of work-related stressors across multiple clinical and organizational dimensions (8). The selected domains addressed patient death and dying, inadequate emotional preparation, uncertainty concerning treatment, conflict with physicians, problems with colleagues, problems with supervisors, interactions with patients and their families, and workload. Each item was evaluated on a four-point response scale: 1 = never stressful; 2 = slightly stressful; 3 = moderately stressful; and 4 = very stressful. The analysis was based on individual item responses rather than a validated total ENSS score. The selected questions represented a restricted adaptation of ENSS domains and were not equivalent to administration of the complete validated scale.

Assessment of coping practices and training preferences

The coping section assessed whether nurses reported taking measures to manage occupational stress, which coping method they selected, and whether they considered stress-management training necessary. The reported coping methods included exercise, rest, talking with others, and relaxation techniques. Responses were treated as self-reported coping practices rather than measures of coping effectiveness or psychological improvement. Endorsement of training was interpreted as a perceived educational need rather than evidence of the effectiveness of any training intervention.

Data collection procedure

Participation was voluntary, and written informed consent was obtained before questionnaire completion. Participants were informed of their right to withdraw from the study. Questionnaire responses were collected during October–December 2025 and entered for statistical analysis. Findings were presented in aggregate form.

Statistical analysis

Data were analyzed using IBM SPSS Statistics, version 27. Categorical variables were expressed as frequencies and percentages, using the analyzed sample of 44 participants as the denominator. The overall knowledge classification was summarized according to the recorded good, moderate, and poor categories. Responses to selected occupational stressor items were summarized separately across the four ordinal response categories. This item-level presentation maintained the distinction between different perceived stressors and avoided treating the restricted set of items as a validated composite ENSS score. Descriptive output also included means, standard deviations, and standard errors for six derived variables: work-related factors, knowledge-related factors, psychological factors, occupational factors, physical factors, and coping/stress-management factors. No inferential comparisons, multivariable models, or adjusted estimates were used to establish associations between demographic or occupational characteristics and knowledge or perceived stress. The results were not interpreted as demonstrating predictors, independent risk factors, or causal relationships.

Ethical considerations

The study was approved by the research ethical board of SACON Institute of Allied Health Sciences, Lahore, Pakistan. Written informed consent was obtained from all participants. Participation was voluntary, and individual responses were presented in aggregate form.

RESULTS

All 44 nurses in the sample analyzed were included in the descriptive results. Thirty-five (79.5%) were women and nine (20.5%) men. Thirty-six (81.8%) were aged 30 years or younger, comprising 18 nurses below 25 years and 18 aged 25–30 years. Twenty-six (59.1%) held a BSN degree and 18 (40.9%) a nursing diploma. Thirty-five (79.5%) were married; 27 (61.4%) had children. Twenty-seven (61.4%) had fewer than five years of work experience, and 17 (38.6%) had five to ten years of experience. All respondents selected the salary category above PKR 50,000. Table 1 presents the full profile.

Table 1. Sociodemographic and occupational characteristics of respondents (N = 44)

Characteristic	Category	n (%)
Age	<25 years	18 (40.9)
	25–30 years	18 (40.9)
	>30 years	8 (18.2)
Gender	Female	35 (79.5)
	Male	9 (20.5)
Marital status	Married	35 (79.5)
	Single	9 (20.5)
Education	BSN	26 (59.1)
	Diploma	18 (40.9)
Experience	<5 years	27 (61.4)
	5–10 years	17 (38.6)
Department	ICU	27 (61.4)
	Emergency department	17 (38.6)
Children	Yes	27 (61.4)
	No	17 (38.6)
Monthly salary	>PKR 50,000	44 (100.0)
Daily duty hours	<8 hours	17 (38.6)
	>8 hours	27 (61.4)
Shift type	Fixed	9 (20.5)
	Rotating	35 (79.5)
Additional responsibilities	Yes	26 (59.1)
	No	18 (40.9)
Role ambiguity	Yes	26 (59.1)
	No	18 (40.9)

Most respondents worked rotating shifts (35/44, 79.5%), and 27 (61.4%) reported working more than eight hours daily. Additional duties and role ambiguity were each reported by 26 nurses (59.1%). These frequencies describe occupational characteristics rather than demonstrating their statistical association with knowledge or stress.

All nurses reported that they had previously heard of occupational stress. Twenty-six (59.1%) selected the response encompassing physical, emotional and work-related strain when identifying its meaning. For its causes, 18 (40.9%) selected lack of support alone, nine (20.5%) workload alone, nine (20.5%) long working hours alone and eight (18.2%) the combined response. The distribution of answers about consequences was similarly concentrated on single effects: 18 (40.9%) selected health problems, nine (20.5%) burnout, nine (20.5%) poor performance, and eight

(18.2%) all listed effects. Thirty-five nurses (79.5%) considered occupational stress capable of affecting patient care. The recorded overall knowledge categories were moderate for 27 (61.4%), poor for nine (20.5%) and good for eight (18.2%).

Table 2. Knowledge responses and recorded overall knowledge classifications (N = 44)

Knowledge item	Response	n (%)
Previously heard of occupational stress	Yes	44 (100.0)
Meaning	Physical strain only	18 (40.9)
	All listed components	26 (59.1)
Causes	Workload	9 (20.5)
	Long working hours	9 (20.5)
	Lack of support	18 (40.9)
	All listed causes	8 (18.2)
Effects	Burnout	9 (20.5)
	Poor performance	9 (20.5)
	Health problems	18 (40.9)
	All listed effects	8 (18.2)
Can affect patient care	Yes	35 (79.5)
	No	9 (20.5)
Recorded knowledge level	Good	8 (18.2)
	Moderate	27 (61.4)
	Poor	9 (20.5)

Perceived occupational stressors Dealing with patient death or dying was the most frequently endorsed severe stressor: 35 of 44 nurses (79.5%) described this as very much stressful, while nine (20.5%) described it as slightly stressful. For inadequate emotional preparation, 18 (40.9%) selected moderately stressful and nine (20.5%) very much stressful. Uncertainty concerning treatment, conflict with physicians, problems with colleagues, problems with supervisors, dealings with patients and families, and workload were each most often described as slightly stressful (18/44, 40.9%), with an additional 18/44 (40.9%) collectively reporting moderately or very stressful responses for each item. Several distinct items had identical response distributions (Table 3). These item-level distributions do not by themselves establish a validated overall stress index.

Table 3. Responses to selected occupational stressor items (N = 44)

Stressor	Never n (%)	Slightly n (%)	Moderately n (%)	Very much n (%)
Patient death and dying	0 (0.0)	9 (20.5)	0 (0.0)	35 (79.5)
Inadequate emotional preparation	8 (18.2)	9 (20.5)	18 (40.9)	9 (20.5)
Uncertainty about treatment	8 (18.2)	18 (40.9)	9 (20.5)	9 (20.5)
Conflict with physicians	8 (18.2)	18 (40.9)	9 (20.5)	9 (20.5)
Problems with colleagues	8 (18.2)	18 (40.9)	9 (20.5)	9 (20.5)
Problems with supervisors	8 (18.2)	18 (40.9)	9 (20.5)	9 (20.5)
Patients and their families	8 (18.2)	18 (40.9)	9 (20.5)	9 (20.5)
Workload	8 (18.2)	18 (40.9)	9 (20.5)	9 (20.5)

Stress management and coping practices Every respondent stated that they used a measure to manage occupational stress, and all 44 endorsed a need for stress-management training. Talking with other people was the most frequent selected method (27/44, 61.4%), followed by rest (9/44, 20.5%) and relaxation techniques (8/44, 18.2%). These responses indicate reported preference or use but do not measure the effectiveness of any coping behavior.

Table 4. Self-reported coping and training preferences (N = 44)

Measure	Response	n (%)
Takes measures to manage stress	Yes	44 (100.0)
Reported coping method	Talking with others	27 (61.4)
Reported coping method	Rest	9 (20.5)
Reported coping method	Relaxation techniques	8 (18.2)
Considers training necessary	Yes	44 (100.0)

Table 5. Derived variable summaries reproduced from the supplied SPSS output (N = 44)

Derived variable	Mean	Standard deviation	Standard error
Work-related factors	0.5568	0.24627	0.03713
Knowledge-related factors	1.1864	0.32962	0.04969
Psychological factors	1.8864	0.49254	0.07425
Occupational factors	1.4318	1.02066	0.15387
Physical factors	1.4318	1.02066	0.15387
Coping and stress management	0.6591	0.20945	0.03158

Descriptive statistics of derived domains Descriptive output gave a psychological-factor mean of 1.8864 (SD 0.49254), work-related factor mean of 0.5568 (SD 0.24627), knowledge-related factor mean of 1.1864 (SD 0.32962), and coping/stress management mean of 0.6591 (SD 0.20945). Occupational and physical factor summaries were

numerically identical (mean 1.4318; SD 1.02066). The underlying construction and direction of the composite scores were not documented sufficiently to draw comparisons between domains or assign clinical severity thresholds.

DISCUSSION

Principal findings and knowledge of occupational stress

This descriptive survey of 44 ED and ICU nurses at Jinnah Hospital, Lahore, demonstrated universal reported awareness of occupational stress but comparatively limited recognition of its multiple causes and consequences. Most respondents were categorized as having moderate knowledge, and fewer than one-fifth selected all listed causes or all listed effects. Dealing with patient death or dying emerged as the most frequently endorsed severe stressor, whereas interpersonal communication was the most commonly selected coping method. These findings distinguish general familiarity with occupational stress from more comprehensive recognition of its multidimensional character. The knowledge categories require caution because the instrument and its thresholds were not independently established as validated measures. Multiple-choice items with an "all of the above" response may reflect recognition of combined options rather than a comprehensive assessment of conceptual understanding. Nurses selecting a single cause may still recognize other causes outside the specific choice presented. The ENSS framework emphasizes distinct domains of stressors, and Pakistani studies demonstrate that workplace stress is not a single-factor phenomenon (4–8).

Occupational conditions and local evidence

Most respondents were aged 30 years or younger, and 61.4% reported fewer than five years' professional experience. This profile is relevant to planning workplace education, but the study did not assess whether experience, age, educational qualification, or gender predicted knowledge or perceived stress. Studies among critical-care and tertiary-care nurses in Pakistan have examined occupational demands, clinical environment stressors, and stress-management concerns (4–7). Mahmood et al. compared stress among nurses working in different hospital specialties in Karachi, including ICU and emergency settings (16). Khan et al. examined factors contributing to stress among bedside nurses in Karachi tertiary-care hospitals (17). Together, these investigations illustrate local relevance across settings, but differences in questionnaires, sampling, and outcome definitions preclude direct comparisons with this study's knowledge classifications.

Death and dying as an emotional stressor

The strongest severe stressor endorsement was for patient death or dying, rated very stressful by 35 of 44 nurses (79.5%). The ENSS includes death and dying as a distinct stressor domain, along with emotional preparation and uncertainty concerning treatment (8). In high-acuity environments, unexpected deterioration, unsuccessful resuscitation, bereavement, difficult conversations, and ethically challenging decisions may create emotional demands beyond those reflected in workload. Hoa et al. used ENSS-based assessment among nurses in Vietnam, providing international context for the multidimensional assessment of nursing stressors (18). Direct numerical comparison would nevertheless be inappropriate because the current study used selected adapted questions rather than the complete ENSS. Supportive clinical debriefing, access to senior colleagues, and appropriate emotional support warrant institutional consideration, but the present descriptive data do not establish the effectiveness of any particular program.

Working hours, shifts, and organizational conditions

Twenty-seven participants (61.4%) worked more than eight hours daily, 35 (79.5%) worked rotating shifts, and 26 (59.1%) reported each of additional responsibilities and role ambiguity. These occupational characteristics warrant attention without being construed as causes of stress in this sample. Rosa et al. systematically reviewed the health implications of shift work among nurses (11). Membrive-Jiménez et al. synthesized the relationship between burnout and sleep problems in nurses (12). Although this evidence supports concern regarding work scheduling and well-being, the present study did not measure sleep quality, fatigue, circadian disruption, or burnout with validated tools, nor did it test associations between scheduling and perceived stress. Further, six distinct stressor items shared identical reported response distributions. Such equality is mathematically possible, but independent verification against item-level records would improve confidence in comparisons among domains. Item-level descriptive results are therefore more defensible than claims ranking all stressor domains.

Coping and social support

All respondents reported taking measures to manage stress, while talking with others was the most commonly selected strategy (27/44, 61.4%); smaller proportions selected rest or relaxation techniques. Interpersonal communication may allow emotional expression, practical advice, and shared experience, but its benefit depends on the quality and availability of social relationships. Dziedzic et al. examined occupational stress and social support among nurses, offering recent context for the potential role of supportive relationships (19). The present study did not assess social support with a validated instrument, distinguish formal from informal support, or measure whether a coping practice reduced stress. Reported coping behavior therefore cannot be treated as evidence of coping effectiveness or adequacy.

Training and organizational response

All 44 participants endorsed the need for stress-management training, indicating a stated educational preference rather than a demonstrated intervention effect. A review by Cohen et al. highlighted diversity in workplace well-being and burnout interventions across healthcare professionals (13). Systematic reviews and meta-analyses by Lee and Cha and by Yıldırım et al. evaluated interventions targeting nurses' burnout (20,21), while a Cochrane review addressed individual-level interventions for occupational stress among healthcare workers (22). WHO guidance recommends responding to psychosocial workplace risks through organizational measures, supportive management, training, and access to appropriate care (14). Accordingly, education may be most useful when complemented by attention to role clarity, scheduling, supervision, workload, and support after difficult clinical encounters. The choice and effectiveness of any local intervention should be evaluated rather than assumed.

Patient care implications

Most respondents (79.5%) believed occupational stress could affect patient care. Systematic reviews by Li et al. and Jun et al. have examined associations between nurse burnout and patient safety and organizational outcomes (9,10). Flynn et al. also reviewed burnout in relation to pediatric nurses' patient-safety attitudes in acute hospitals (23). These studies justify concern about nursing well-being in quality-of-care planning, but they do not show that limited occupational-stress knowledge causes adverse patient outcomes. Patient-care quality and burnout were not independently assessed here; the observed finding is nurses' recognition of a possible connection.

Strengths and limitations

A strength of this investigation is its focused assessment of knowledge, perceived stressors, and coping preferences in two high-acuity departments. It distinguishes the recognition of occupational stress from the experience of stress and includes institution-specific information relevant to educational needs assessment. Nevertheless, the convenience sample included only 44 nurses from one hospital and is vulnerable to selection bias and limited generalizability. Self-report introduces possible recall and social-desirability biases. The brief five-question knowledge instrument had insufficiently documented scoring thresholds for the reported categories, and selected ENSS-derived items were not a validated administration of the full ENSS. No inferential associations, adjustment for confounding, or longitudinal observations were reported. Identical item frequency patterns for several stressors and undocumented composite-score construction limit comparisons across domains. These limitations preclude causal interpretations, precise population prevalence estimates, and claims about predictors of knowledge or stress. Larger multicenter studies using transparent scoring and validated measures could examine links between workplace characteristics, knowledge, perceived stress, coping, and professional well-being.

CONCLUSION

Among 44 ICU and emergency nurses surveyed at Jinnah Hospital, Lahore, awareness of occupational stress was universal, but responses suggested incomplete recognition of its multiple causes and consequences. Patient death and dying was frequently perceived as very stressful, and interpersonal communication was the most commonly reported coping method. All respondents endorsed stress-management training. These findings support further evaluation of nurses' educational and workplace support needs, while the small convenience sample, restricted instrument, and descriptive analysis limit generalizability and prevent conclusions about causal risk factors or the effectiveness of specific interventions.

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