

Job Stress among Paediatric Nurses in Clinical Area: Cross-Sectional Study

Kholoud Hashem Salloum^{1*}, Hadi Faiz Jazan², Marlen Hashem Salloum³, Fatima Fadil Jawad⁴, Zahraa A. Althabet⁵

¹Department of Paediatric Nursing, College of Nursing, University of Warith Al-Anbiyaa, Karbala, Iraq

²Department of Psychiatric and Mental Health Nursing, College of Nursing, University of Warith Al-Anbiyaa, Karbala, Iraq

³Radiological Techniques Department, College of Health and Medical Techniques, University of AL-Zahraa for Women, Holy Karbala, Iraq

⁴Department of Maternity Nursing, College of Nursing, University of Warith Al-Anbiyaa, Karbala, Iraq

⁵Department of Basic Science, College of Nursing, University of Warith Al-Anbiyaa, Karbala, Iraq

*Corresponding Author's Email: kholoud.ha@uowa.edu.iq

ABSTRACT

Background: Paediatric nurses experience distinct mental and physical challenges on the job, adding to the widespread problem of healthcare worker stress. The negative effects on health, productivity, and patient care can result from nurses experiencing high levels of stress, few studies have looked at the prevalence of stress among Iraqi paediatric nurses, despite the fact that this population has higher rates of stress overall. **Objective:** The study aimed to find out stress levels and recognise the causes of stress among paediatric nurses. **Methods:** Descriptive cross-sectional study design, conducted in the Educational Karbala Hospital for Children in the Holy City of Karbala in Iraq, and the researcher used a questionnaire which consists of two parts, socio-demographic for the study sample: age, educational level etc. In addition, the expanded nursing stress scale (ENSS) to measures the sources and frequency of stress experienced by the nurses. A total of 300 nurses randomly selected were recruited. **Results:** Indicated that the common paediatric nursing personnel assessed their job stress as moderate (87.7%), but the nurse had more stress related to the patient's death. In addition, there are no significant differences in job stress ($p \geq 0.05$) in relation to the rest of the demographic variables. **Conclusion:** Researchers found that all those nurses have a moderate level of job stress. Current study recommended to find ways to decrease the prevalence of job stress among paediatric nurses, as treating the difficulties inside and outside the workplace in order, to decrease the stress for those nurses' group, foster a positive work environment and Ensure Clear Job Role Definitions.

Keywords: Iraq; Job; Nurses; Paediatric; Stress

INTRODUCTION

There is growing interest in analysing and understanding the different sources of workplace stressors. Furthermore, substantial evidence indicates that nursing is perceived as a highly stressful occupation within the health care sector, with numerous studies documenting elevated stress levels among nurses (Al Sabei *et al.*, 2023). The nursing job is highly intricate and demanding, exposing nurses to various conditions that might impact their physical and emotional health. Nurses often encounter patients with terminal illnesses and in critical situations (Goudarzian *et al.*, 2024). Paediatric nurses must deliver developmentally suitable care and meticulously address patient and family concerns. The intricate responsibilities of paediatric nurses necessitate unwavering attention to detail to deliver exceptional patient care (Hendy *et al.*, 2023). Stress

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constitutes a significant risk factor for paediatric nurses, potentially resulting in substandard care (Glawing *et al.*, 2024). Nurses' health and capacity to handle demands at work were both negatively impacted by workplace stress (Pangarkar *et al.*, 2023).

Research indicates that nursing is among the most challenging professions. Occupational stress affects workers' perceptions of events and work pressures, thereby influencing their mental health. Stress diminishes judgment, focus, and decision-making capabilities (Jeon, Yun & Kim, 2024). It diminishes care quality and increases the likelihood of errors. Nurses may experience guilt regarding illnesses that afflict them due to their profession. Nurses may experience significant guilt when managing multiple issues in patient care (Quesada-Puga *et al.*, 2024). Job stress harms physiology, psychology, and behavior, including job performance. While limiting stress, such as conflicting roles and work anxiety, cannot be overcome, challenge stress, such as task load and time pressure, can be utilized to further nursing careers (Yu *et al.*, 2024). In addition, Unsatisfactory work performance and insufficient nursing care adversely affect the wellness of patients (Bian *et al.*, 2023). Compared to nurses in other words, paediatric nurses are particularly vulnerable to mental health issues and professional stress (Bhagat *et al.*, 2025; Fang *et al.*, 2020). Limited research has investigated stressors among paediatric nurses with differing years of experience.

Significance of the Study

This study identifies specific characteristics contributing to occupational stress amongst paediatric nursing staff, including exhaustion, age, and problems in the work environment. Comprehending these stressors is essential for formulating specific therapies to enhance the wellness of nurses' overall job fulfilment. In addition, Burnout, which can result in lower job performance, lower-quality medical care, and higher turnover rates, is strongly predicted by job stress. Healthcare companies may prevent burnout and preserve an additional reliable workforce by treating stress (Keykha, Alinejad-Naeini & Peyrovi, 2025). Whereas the paediatric nurses are essential in providing care for patients who are at risk. Reducing work-related stress can improve their capacity to deliver compassionate, superior treatment, which will eventually improve patient outcomes (Huang *et al.*, 2025).

METHODOLOGY

Design of the Study

The study employed a descriptive cross-sectional design.

Setting and Sample of the Study

The study was conducted at the Educational Karbala Hospital for Children in Karbala. The research sample comprised 300 nurses working at the hospital, selected through a random sampling method.

Exclusion Criteria

The study included individuals who were not participating in any program related to work stress management or control. Additionally, individuals diagnosed with chronic diseases were also excluded from participation in order to minimize potential confounding factors that could influence the study outcomes.

Study Tool

Study tool consists of two parts:

1. Part one: Socio-demographic for the study sample: Age, sex, educational level, number of years of work experience, residency, workplace, working hours, nature of work.

2. Part two: Expanded nursing stress scale (ENSS) (Abu Ruz *et al.*, 2018; French *et al.*, 2000) has been tested for both validity and reliability (> 0.70) in various nursing populations, including paediatric and clinical settings, and it contains 57 items, each representing a different source of stress; which is a validated tool for measuring the frequency and intensity of stress experienced by nurses in different clinical situations. The

ENSS seeks to identify the sources and levels of stress experienced by nurses in their professional practice, thereby aiding researchers in understanding critical stressors and facilitating the implementation of supportive interventions.

Scoring

The nurses' Job stress was classified based on the mean score (MS) of their answers to the items of the Job stress questionnaire, the range scores was divided into stratified quartiles to develop an ordinal scale The stress score was stratified into low stress (first quartile: 0 – 1), moderate stress (second and third quartiles: 1.01 – 2; 2.01 - 3) and high stress (fourth quartile: 3.1 - 4). Probability levels:

Average (MS = 0 - 1) is considered low job stress.

Average (MS = 1.01 - 3) is considered moderate job stress.

Average (MS = 3.1 - 4) is considered high job stress.

Data Collection

The questionnaire was distributed to the respondents, and they were asked to answer the questionnaire electronic, where the data collected between 13th February 2024 to 15th April 2024.

Statistical Analysis

The statistical analysis utilised in this study included descriptive statistics such as frequency (N), mean (M), standard deviation (SD), and percentage (%) to summarize the data. To examine differences in job stress based on demographic variables with two groups, an independent samples *t*-test was employed. For demographic variables with more than two categories, a one-way analysis of variance (ANOVA) was conducted. A *p*-value of ≤ 0.05 was considered the threshold for statistical significance, indicating meaningful differences between groups.

Ethical Consideration

The research obtained ethical clearance from the Ethics Committee of the College of Nursing at Warith Al-Anbiyaa University, Iraq with reference number 356 on 8th December 2023.

RESULTS

The results of the data analysis presented methodically:

Table 1: Socio- Demographic Data for the Study Sample

Variables		N = 300	
		N	%
Gender	Male	165	55.0
	Female	135	45.0
Total		300	100
Education	Diploma	96	32.0
	Graduation	191	63.7
	Postgraduate	13	4.3
Total		300	100
Workplace	ICU	33	11.0
	CCU	28	9.3
	Other	239	79.7
Total		300	100
Marital statuses	Married	171	57.0
	Unmarried	113	37.7
	Widowed	9	3.0
	Divorced	7	2.3
Total		300	100

Table 1 reveals that more than half of the participants 55% were male. The education in nursing refers that 63.7% of them graduated. The majority of them, 79.7% are working at other places than ICU (Intensive Care Unit) and CCU (Cardiac Care Unit). More than half of them, 57%, are married.

Table 2: Assessment of Job Stress among Paediatric Nursing Staff Related to Clinical Requirements

Requirements in Clinic Area	M	SD	Level
Performing operations that cause agony to patients	1.95	0.994	Moderate
Criticism by a physician	1.89	1.207	Moderate
Feeling unprepared to assist with a patient's family's emotional demands	1.65	1.091	Moderate
Difficulty discussing issues in the workplace candidly with other staff members.	1.84	1.261	Moderate
Conflict with a supervisor	1.99	1.301	Moderate
Breakdown of computer	1.89	1.378	Moderate
Inadequate information from a physician regarding the medical condition of a patient	1.91	1.215	Moderate
Patients making unreasonable demands	2.36	1.190	Moderate
Being sexually harassed	2.00	0.000	Moderate
Feeling powerless when a patient doesn't improve	2.22	1.247	Moderate
Conflict with a physician	1.94	1.172	Moderate
A patient asking a question can't answer	1.92	1.201	Moderate
Lack of workplace sharing of experiences and feelings with others	1.78	1.271	Moderate
Floating to understaffed units/services	2.14	1.251	Moderate
Unpredictable staffing and scheduling	1.91	1.282	Moderate
A physician prescribing what seems to be an unsuitable treatment	1.74	1.282	Moderate
Families of patients making irrational requests	2.29	1.285	Moderate
Experiencing discrimination because of race or ethnicity	2.00	0.000	Moderate
Discussing dying with a patient	1.90	1.397	Moderate
Fear of making a mistake in treating a patient	2.13	1.295	Moderate
Feeling unprepared to help a patient emotionally	1.83	1.255	Moderate
Lack of opportunity to voice my unfavorable feelings toward patients to unit staff	1.77	1.256	Moderate
Problems dealing with a nurse or nurses in my current work context	1.84	1.215	Moderate
Difficulty in working with a particular nurse (or nurses) outside my immediate work setting	1.78	1.246	Moderate
Too little time to comfort emotionally the sufferer.	1.81	1.274	Moderate
A medical emergency without a doctor	2.14	1.390	Moderate
Attribution of blame for any adverse outcomes	2.11	1.403	Moderate
Experiencing discriminations on the basis of sex	1.87	1.406	Moderate
The death of a patient	2.51	1.317	Moderate
Patient treatment disagreement	2.01	1.243	Moderate

Table 2 presents the mean (M), standard deviation (SD), and level of job stress perceived by paediatric nurses in relation to various clinical requirements. The highest stressors were associated with patient's death, unreasonable demands, and emotional strain when patients did not improve.

Table 3: Assessment of Job Stressors and Perceived Stress Levels among Paediatric Nursing Staff

Bedtime Resistance	M	SD	Level
Feeling adequately trained for what have to do	1.81	1.169	Moderate
Unsupportive immediate supervisor	2.02	1.333	Moderate
Disapproval by a supervisor	2.00	0.000	Moderate
Too little time to finish nursing tasks	1.90	1.301	Moderate
Not knowing what to tell a patient or family about their condition and treatment	1.83	1.313	Moderate
Being the one that has to deal with patients' families	2.03	1.253	Moderate
Managing violent patients	2.21	1.306	Moderate
Exposure to safety and health dangers	2.26	1.280	Moderate
Your close patient's death	2.36	1.352	Moderate
Decision-making for a patient without a doctor	1.94	1.219	Moderate
Being in charge with insufficient experience	1.95	1.247	Moderate
Deficiency of support by administrators	2.16	1.284	Moderate
Too many non-nursing jobs, such clerical	2.20	1.264	Moderate
Insufficient staff to cover the unit	2.29	1.275	Moderate
Ambiguity concerning the operation and functionality of specialized lavage equipment	2.04	1.260	Moderate
Having to deal with abusive patients	2.26	1.241	Moderate
Too little time to meet patient families' demands	1.88	1.264	Moderate
Being responsible for things can't control	2.00	1.336	Moderate
Physician absent when patient dies	1.97	1.428	Moderate
Managing Doctors' work	1.91	1.378	Moderate
Insufficient support from other health administrators	2.07	1.270	Moderate
Trouble working with opposite-sex nurses	1.82	1.186	Moderate
System requirements for patient classification	1.86	1.231	Moderate
Dealing with patient family abuse	2.21	1.266	Moderate
Watching a patient suffer	2.39	1.282	Moderate
Criticism by nursing administration	2.22	1.328	Moderate
Working during breaks	2.28	1.223	Moderate
Not knowing if patients' families would report poor care	1.83	1.267	Moderate
Decision-making under pressure	1.80	1.257	Moderate

Table 3 summarises the mean (M), standard deviation (SD), and level of stress experienced by paediatric nurses across different job stressors. The most stressful situations included watching patients suffer, patient death, and managing insufficient staffing.

Both table 2 and 3 show the average mean and the job stress level perceived by the paediatric nursing in each phrase of the scale. Where the average mean for all phrases showed that there was an average level of job stress in each phrase.

However, the phrases related to 'patient's death' and 'suffering' had the highest mean values, indicating that these situations were perceived as more stressful by the nurses, with ($M \pm SD = 2.51 \pm 1.317$) and ($M \pm SD = 2.39 \pm 1.282$), respectively. Conversely, the phrases "Feeling unprepared to help a patient emotionally" and "A physician prescribing what seems to be an unsuitable treatment" had the lowermost mean values, indicating that these phrases were professed as less stressful by the nurses by ($M \pm SD = 1.65 \pm 1.091$) and ($M \pm SD = 1.74 \pm 1.282$) respectively.

The phrases "patient's death and suffering" are likely to be more stressful for nurses because they involve direct confrontation with patient suffering and death. Dealing with these situations can be highly emotional and emotionally draining, leading to increased levels of job stress. On the other hand, the phrases "Feeling

unprepared to help a patient emotionally" and "A physician prescribing what seems to be an unsuitable treatment" may be less traumatic because they do not involve direct confrontation with patient suffering. Rather, these phrases may relate to concerns about competence or conflicts with colleagues, which may be less stressful than dealing with patient suffering and death.

Table 4: Levels of Occupational Stress and Its Distribution within the Sample

Total Job Stress Level	<i>f</i>	%	M	SD	Assessment
Low	27	9.0	2.01	0.668	Moderate
Moderate	263	87.7			
High	10	3.3			
Total	300	100			

Table 4 evaluates nursing staff job stress in this study. The results show moderate job stress ($M \pm SD = 2.01 \pm 0.668$). The majority of nursing staff (87.7%) perceived their job stress at a Moderate level. Additionally, 9% of them perceived it at a low level, while only a small percentage (3.3%) perceived it at a high level.

Table 5: Job Stress and Demographics of Sample

Variables		N	M	SD	T / F	<i>p</i> value
Gender	Male	165	1.99	0.684	T 0.547	0.585
	Female	135	2.03	0.651		
Education	Diploma	96	1.95	0.771	F 1.568	0.210
	Graduation	191	2.02	0.625		
	Postgraduate	13	2.29	0.351		
Workplace	ICU	33	2.04	0.526	F 1.874	0.155
	CCU	28	2.24	0.357		
	Other	239	1.98	0.709		
Marital status	Married	171	1.99	0.681	F 0.515	0.672
	Unmarried	113	2.04	0.642		
	Widowed	9	2.19	0.585		
	Divorced	7	1.84	0.923		

T: T test for The Independent sample; F: One Way Anova test

Table 5 showed no significant differences in job stress ($p \geq 0.05$) related to the rest of the demographic variables.

DISCUSSION

Paediatric nurses encounter mental, physical, and organizational obstacles on their job, according to this study that takes a nursing and healthcare management stance. It recognises that care for children is delicate and that dealing with worried families may be emotionally taxing, making paediatric nursing an inherently challenging profession. Factors like high patient acuity, emotional commitment to patients, long shifts, and personnel shortages frequently make these stresses even worse.

Due to job stress's impact on nurses' quality of life and care behaviours, job stress in paediatric nursing staff must be studied. Research shows that job stress affects nurses' physical and emotional health, job productivity, and treatment quality. The result of our research reveals according to the Table 1, that more than half of the participants were male nurses, and the majority of them were working at other places than the NICU and NCCU. One possible reason for the higher representation of male nurses in this study may be related to the overall gender distribution within the nursing profession. On the other hand, Okechukwu (2025) the stress experienced by paediatric nurses is not specific to a particular department or unit but rather is prevalent across various areas of nursing practice.

The existing study discovered in Table 2 that the majority of paediatric nursing staff perceived their job stress at a moderate level. The result corresponds with Zhang, Zhou and Xia (2025) that found more than half of paediatric nurses had empathy exhaustion in their work. In addition, another study done in Egypt (Ibrahim, Zakaria & Abdel-Ghani, 2023) revealed, that most staff nurses had moderate stress and more than half had poor performance on the job. Alharbi *et al.*, (2023) found the stress impacted over fifty percent of the paediatric nurses polled. In addition, Wali *et al.*, (2023) in Saudi Arabia, the findings revealed a contrasting outcome, with the majority of nursing staff involved in the study reporting high levels of stress.

This finding aligns with the broader understanding that the nursing profession is inherently associated with high stress levels, largely due to various job demands and environmental factors (Alraimi & Shelke, 2023). Consequently, previous research has found modest job stress, as does this study. Several studies have examined occupational stress and characteristics within clinical nurses. The current study revealed no significant differences in job stress ($p \geq 0.05$) related to the rest of the demographic variables. While Shdaifat *et al.*, (2023) found a strong relation between the level of job stress and emotional impact of the nurses, which are mostly related to females more than males, they reported a low level of stress, where higher levels of empathy fulfilment are being associated with reduced stress on the job.

Another study found relation between the stress level and workplace (Kabir & Razia, 2020). The medicine and emergency room nurses showed more occupational stress than nurses in different departments. In addition, a study by (Yildirim *et al.*, 2017), examined the relationship between job experience and stress levels, showing that new nurses were more stressed. These data demonstrate the complex relationship between demographics and clinical nurses' occupational stress. A study explored the relationship between job stress and demographic data among nurses in clinical areas, where the researcher found a significant correlation between age and job stress levels among nurses, with younger nurses reporting higher levels of stress (Bai & Ravindran, 2019).

Job stress is viewed in this research as a systemic problem that affects patient safety, staff retention, and overall healthcare quality, as well as an individual burden for nurses. From this vantage point, it is critical to comprehend and alleviate occupational stress in order to provide a nurturing workplace that encourages nurses to be healthy, boosts their clinical performance, and guarantees the best possible results for patients.

Limitation

The primary limitation is that nurses are relatively busy with their work. In addition, this study has several limitations; First, the cross-sectional design prevents causal inferences. Second, self-reported data may be subject to bias. Third, the sample was limited to reducing generalizability. Finally, unmeasured confounders (e.g., institutional policies) could influence stress levels. Future longitudinal or mixed-methods studies are recommended.

CONCLUSION

The findings of this study highlight those nurses working in Educational Karbala Hospital for Children in the Karbala city in the Holy of Karbala city, experience moderate levels of job stress without in relation to their demographics data. This indicates that while their stress levels are not critically high, they are still significant enough to potentially impact their well-being, job satisfaction, and quality of patient care. Several factors likely contribute to this stress, including the emotional demands of caring for sick children, high workloads, long shifts, and the pressure to maintain precision in a sensitive healthcare environment. Addressing these stressors is essential to ensure nurses' mental and physical health, reduce burnout, and improve retention rates in paediatric nursing. This study found that nurses working in paediatric hospitals in Iraq experience moderate levels of job stress, suggesting a need for targeted interventions to improve their well-being and work conditions.

However, to gain a deeper understanding of job stress in this setting, future research should expand in several key directions. Multi-center investigations across different hospitals in Iraq would provide a more representative and diverse sample, reduce regional biases and offer broader insights. Additionally, including other healthcare professionals such as physicians, therapists, and technicians who work with paediatric patients would allow for a comparative analysis of stress levels across roles, identifying unique challenges faced by different team members. In addition, analysis of stressors, such as the impact of conflict and security issues, by

looking into how current hostilities and safety concerns in Iraq impact paediatric nurses' job stress. Furthermore, examine how Iraqi cultural and social characteristics affect paediatric nurses' job stress. By broadening the scope of research in these areas, healthcare policymakers and hospital administrators can develop more effective, evidence-based interventions to support paediatric nurses and other medical staff. Addressing job stress not only enhances the well-being of healthcare workers but also improves patient care quality, ensuring a more resilient and sustainable healthcare system in Iraq.

Recommendation

The study results recommend the following measures to alleviate clinical paediatric nurses' stress on the job by the following points: establishing programs to manage stress should be implemented by hospitals; these programs should include mindfulness training, relaxation methods, and professional counselling services that are specifically designed for paediatric nurses. In addition, reducing workload and preventing burnout requires adequate nurse-to-patient ratios. Besides providing emotional and psychological assistance, including peer groups, debriefing sessions following critical incidents, and access to psychologists to assist nurses in managing the emotional challenges related to paediatric care. Furthermore, encouraging the equilibrium between professional responsibilities and personal well-being.

Conflict of Interest

The authors declare that they have no competing interests.

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