

The Relationship Between Work-Related Stress and the Performance of Emergency Department Nurses at Hospital X

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Article Information	ABSTRACT
Article History: <i>Submission: 14 June 2025</i> <i>Revision: 10 November 2025</i> <i>Reception: 20 February 2026</i>	Introduction: The nursing profession is one of the professions with high levels of stress, especially among nurses working in the Emergency Room (ER). Frequently facing critical situations requires a quick response and accurate decision-making. Based on a preliminary survey, it is known that nurses experience high stress (20%) and moderate stress (60%), indicating the prevalence of stress among ER nurses at Hospital X. This study aimed to determine the relationship between job stress and nurse performance in the Emergency Room of Hospital X. Method: This is a quantitative study using a cross-sectional approach. The independent variable is job stress, and the dependent variable is performance. The population of all emergency room nurses was 31 individuals. Total sampling was used, resulting in 31 respondents. Data collection was conducted using a questionnaire. The Perceived Stress Scale (PSS) questionnaire was used to measure job stress levels, and the Individual Work Performance Questionnaire (IWPQ) was used to measure nurse performance. Data analysis was performed using univariate and bivariate methods, specifically the Spearman's rank test. Results: The frequency distribution of the job stress variable showed severe stress (total score above 26) in 20 individuals (64.5%) and low work performance (total score below 6.53) in 18 individuals (58.1%). Results of the bivariate analysis showed a p-value of 0.017 ($p \leq 0.05$) and a correlation coefficient of -0.424. Conclusion: There is a significant relationship between work stress and nurse performance, such that the higher the level of work stress experienced by nurses, the more their performance tends to decline.
Keywords: <i>Emergency nurses, performance, work-related stress</i>	
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INTRODUCTION

A study conducted by Ilham et al. (2024) indicates a statistically significant relationship between work-related stress and nurses' performance. Nurses with low levels of work-related stress are approximately 12 times more likely to demonstrate optimal performance compared to nurses experiencing high levels of work-related stress. This is consistent with the findings of Azqia, Makaginsar, and Putra (2025), which suggest a relationship between work-related stress and nursing performance.

A preliminary survey conducted in January 2025 at the Emergency Department of Hospital X among 10 nurses revealed that among several psychosocial factors such as workload, work-related stress, social support, and work motivation. Job stress had the highest value compared to other psychosocial factors, indicating that nurses experienced high stress (20%) and moderate stress (60%), which points to the presence of stress among nursing staff at Hospital X. Data shows that the number of patients admitted through the Emergency Department (ED) averages 40 patients per day, with 31 ED nurses on staff. The high daily patient volume has the potential to create excessive workloads for nurses. High work load pressure has the potential to trigger work-related stress, thereby affecting nurses' performance. Work-related stress is an important issue to address, but this does not mean it always has negative effects; in certain situations, stress within reasonable limits can actually serve as a positive motivator. The selection of this hospital as the study site was based on the consideration that it is located in an area with a high population density. A location in a densely populated area is likely to have a relatively high volume of patient visits, making it a relevant site for this research.

The purpose of this study is to identify the relationship between work-related stress and the performance of nurses in the Emergency Department (ED) of Hospital X. Understanding this relationship can assist hospital management in scheduling work hours, distributing workloads proportionally, and providing appropriate social support. Furthermore, these findings can also serve as a basis for strengthening religious and spiritual aspects in the workplace, for example through regular discussions or the implementation of other stress management strategies.

LITERATURE REVIEW

Work performance is the outcome achieved by an individual based on assigned tasks and responsibilities and reflects actual behavior within the organization (Silas et al., 2019). According to (Suparyanto and Rosad, 2015), performance is measured by the achievement of targets within a specific timeframe, while (Umam & Abdurokhim, 2023) states that performance can be evaluated based on organizational standards. Theories supporting work performance include Path-Goal Theory, which states that individuals will behave along a specific path to achieve goals in the presence of facilitators or barriers, and Attribution Theory, which explains that performance arises from the dynamic relationship between motivation and ability (Soelistya et al., 2021). Factors influencing performance include financial, physical, social, and psychological aspects (Soelistya et al., 2021). Work performance can be categorized into quantitative, qualitative, individual, team, and potential performance (Sevina P., 2023).

Performance appraisal is a key element in evaluating an individual's effectiveness within an organization. The effectiveness of performance appraisal is determined by several factors, such as its relevance to organizational goals, its ability to distinguish between employees' performance, the reliability or consistency of results, and its acceptance by both supervisors and subordinates. Additionally, practicality is also important to ensure the

evaluation process is easy to understand and implement (Soelistya et al., 2021). Performance improvement can be achieved through various strategies, such as providing praise, offering bonuses as a form of appreciation, organizing team-building activities, providing counseling for employees, and enhancing workplace facilities (Carissa, 2021).

Psychosocial factors also influence work performance. These factors encompass psychological and social aspects that can affect an individual's mental and emotional state (Lathifah et al., 2024). Some psychosocial aspects that influence performance include depression, anxiety, and stress. Stress is a state of tension, both mental and physical, that arises as a response to specific pressures or burdens. This condition can be experienced by anyone, whether temporarily or chronically, and can affect a person's health and performance if not managed properly. Stress is a significant factor that must be addressed in the workplace, as it can arise from pressures stemming from various challenges individuals face in their work environment. Work-related stress often arises when a person feels overwhelmed by task demands that exceed their capacity or capabilities (Ani et al., 2020). Stress can be categorized into three levels: mild, moderate, and severe. Mild stress is typically characterized by rapid fatigue and an inability to relax, though these symptoms generally subside when stress is managed effectively (Aji et al., 2020). Moderate stress manifests through physical responses such as a feeling of weakness, near-fainting, and reduced concentration and memory. Meanwhile, severe stress can cause digestive system disorders, increased heart rate, difficulty breathing, and body tremors.

Referring to the Yerkes-Dodson curve, Le Fevre, Matheny, and Kolt (2003) in (Gaol, 2016) state that stress can have a positive effect in the form of *eustress*, which can improve health and performance, as long as the stress level does not exceed the maximum limit. However, when stress is of high intensity (*distress*), it will actually have a negative impact on an individual's performance and health. The workload an individual faces and their physical and psychological capabilities can have a positive or negative influence on stress levels (Gaol, 2016).

METHODS

The research design is a quantitative correlational study using a cross-sectional approach, meaning data collection is conducted at a specific point in time to determine the relationship between work-related stress and nurse performance in the Emergency Department (ED) of Hospital X. This study was conducted in February 2025, with the study population consisting of all ED nurses, totaling 31 respondents. The sampling technique used was total sampling, in which all members of the population were included as research samples. The independent variable in this study was work-related stress, while the dependent variable was nurse performance.

Data collection was conducted using a questionnaire. Work-related stress was measured using the *Perceived Stress Scale* (PSS) questionnaire developed by Cohen, S., Kamarck, T., & Mermelstein, R. (1983), which consists of 10 items. The PSS-10 uses a validated Indonesian version with a Cronbach's Alpha coefficient of 0.96, indicating that all items in the PSS-10 are valid (Suhana, 2021). The PSS-10 is divided into three categories: mild stress (total score 1–14), moderate stress (total score 15–26), and severe stress (total score above 26), in accordance with the PSS-10 guidelines. The PSS-10 questionnaire is used to assess the level of stress experienced by respondents in their daily lives.

Meanwhile, nurses' performance was measured using the *Individual Work Performance Questionnaire* (IWPQ) based on indicators developed by Widyastuti, T. & Hidayat, R. (2018), which consists of 18 items. The IWPQ is a self-report instrument used to assess individual performance based on self-perception. This tool can evaluate various

important aspects related to personal performance and can be applied across various occupational fields (Koopmans in Widyastuti & Hidayat, 2018). The Individual Work Performance Questionnaire (IWPQ) scale demonstrates a high level of reliability with a Cronbach's Alpha value of 0.958 (Fazira, 2021). The assessment in the IWPQ covers three main aspects: task performance, contextual performance, and counterproductive work behavior. The total IWPQ score is calculated using the formula: $IWPQ \text{ score} = TP + CP + (4 - CCP)$. The resulting score ranges from 0 to 12, representing the level of individual performance. A score of 0 indicates a low level of performance, while a score of 12 indicates high performance. The category criteria were determined based on the formula by Triola, M.F. (2018), which aims to simplify the data and facilitate statistical analysis. Thus, the criteria for the low category (total score less than 6.53) and the very high category (total score above 9.92) were established.

Univariate analysis was used to provide an overview of the respondents' characteristics and the conditions of each variable. Based on the results of the normality test, it was found that the data in this study are not normally distributed. Since the data in this study are ordinal and do not meet the assumption of normality, bivariate analysis was conducted using the Spearman Rank test. This test was chosen because it is suitable for testing relationships between variables in non-parametric data; the alpha correlation value was set at 0.05, which corresponds to a 5% significance level.

RESULTS AND DISCUSSION

Univariate analysis was used to describe the characteristics of the respondents and each of the variables under study. The purpose of this analysis is to provide an overview of the data obtained, in the form of frequency distributions, percentages, and measures of central tendency and dispersion, so that the profile of the respondents and the trends of each variable can be identified in detail.

Table 1. Distribution of Respondent Characteristics

Respondent Characteristics	Category	Frequency (n)	Percentage (%)
Gender	Male	11	35.5
	Female	20	64.5
Age	Early adulthood (19–44 years)	21	67.7
	Late Adulthood (45–59 years)	10	32.3
Highest Level of Education	Associate's Degree	22	71.0
	Bachelor's Degree	8	25.8
	Master's Degree	1	3.2
Length of Service	New Service (≤ 5 years)	9	29.0
	Long Service (>5 years)	22	71.0
Marital	Married	27	87.1
	Unmarried	4	12.9

Based on the data in Table 1, the majority of respondents in this study were women, totaling 20 people (64.5%). The majority of respondents were in the early adult age group, totaling 21 people (67.7%). The respondents' educational level was dominated by Diploma 3 (D3) graduates, totaling 22 people (71.0%). There were 22 respondents (71.0%) with long work experience. The majority of respondents were married, totaling 27 people (87.1%).

Univariate analysis was conducted to determine the characteristics of the respondents and the distribution of each research variable. The results of this analysis are

presented in the form of frequency distributions and percentages, providing an initial description of the respondents' conditions and the variables under study.

Table 2. Distribution of Stress and Work Performance Variables

Variable	Category	Frequency (n)	Percentage (%)
Stress	Mild	1	3.2
	Moderate	10	32.2
	Heavy	20	64.5
Performance	Low	18	58.1
	Moderate	10	32.3
	Moderately High	2	6.5
	High	0	0.0
	Very High	1	3.2

Based on the data in Table 2, it is evident that the majority of respondents experience high work-related stress, totaling 20 individuals (64.5%). Regarding performance distribution, the majority of respondents demonstrated low performance, amounting to 18 individuals (58.1%), while 10 individuals (32.3%) exhibited moderate performance.

Bivariate analysis was conducted to determine the relationship between the independent and dependent variables in this study. The statistical tests used were tailored to the type of data and the research objectives, thereby providing insight into the strength and direction of the relationship between the variables.

Table 3. Relationship Between Work Stress and the Performance of Emergency Department Nurses (N= 31)

Work Stress	Work Performance										Number	P-value	r	
	Low		Moderate		Moderately High		High		Very High					
	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)				
Mild	0	0.0	0	0.0	0	0.0	0	0.0	1	3.2	1	3.2	0.017	0.424
Moderate	4	12.9	4	12.9	2	6.5	0	0.0	0	0.0	10	32.3		
Weight	14	45.2	6	19.4	0	0.0	0	0.0	0	0.0	20	64.5		

Table 3 shows the distribution of work-related stress levels in relation to the respondents' work performance. Of the total 31 respondents, the majority – 20 people (64.5%) – experienced severe work-related stress. Within this group, 14 people (45.2%) had low work performance, while the remaining 6 people (19.4%) had moderate performance. There were 10 respondents (32.3%) experiencing moderate work-related stress, with 4 (12.9%) having low performance, 4 (12.9%) having moderate performance, and 2 (6.5%) having somewhat high performance.

The results of the bivariate test using Spearman's rank correlation showed a *P-value* of 0.017 for the relationship between work stress and work performance. A *P-value* of ≤ 0.05 indicates that the relationship is statistically significant. Meanwhile, the correlation coefficient was -0.424. A negative correlation coefficient indicates that the direction of the relationship between the two variables is inverse; that is, the higher the level of work stress experienced by an individual, the lower their performance level. Thus, high levels of work stress can lead to a decline in work performance.

Previous research conducted by Ilham et al. (;) indicates a statistically significant relationship between work-related stress and nurses' performance. Nurses with low levels of work-related stress are approximately 12 times more likely to demonstrate optimal

performance compared to nurses experiencing high levels of work-related stress. This is consistent with the findings of Azqia, Makaginsar, and Putra (2025), which indicate a relationship between work-related stress and nursing performance.

According to Aji et al. (2020), stress can be divided into three levels: mild, moderate, and severe. Stress disorders are characterized by physical symptoms such as increased heart rate, fatigue and headaches, insomnia, digestive problems, and decreased concentration and memory. Severe stress can lead to behavioral changes such as withdrawing from social environments, reduced appetite, loss of interest in work, difficulty controlling one's emotions, and decreased work performance (Aji et al., 2020).

Work-related stress often arises when an individual faces pressure due to task demands exceeding their capacity or capabilities. It is important to note that work-related stress does not always have negative consequences. Stress within manageable limits can actually serve as a catalyst for heightened motivation and focus. It is crucial to recognize that stress can act as an indicator for both individuals and organizations to conduct evaluations and strengthen their existing work support systems. Managing work-related stress should not only focus on avoiding it but also on adopting a more adaptive approach. The positive aspects of stress can be fully leveraged, while its negative effects can be minimized. Stress itself is a crucial element in the workplace, as it arises from the pressures of various challenges faced by individuals in their work environment (Ani et al. 2020).

Excessive stress can reduce employee performance and impair cognitive abilities. Factors influencing performance include financial, physical, social, and psychological aspects (Djoko Soelistya et al., 2021). Work performance can be categorized into quantitative, qualitative, individual, team, and potential performance (Sevina P., 2023). The impact of social aspects on stress includes poor interpersonal relationships. Consequently, if nursing staff experience stress, they are likely to struggle with interacting with patients, and communication between nurses and with patients will be less effective. It can even trigger conflicts with others (Suprpto, 2020).

According to Twistiandayani (2022), there is a relationship between psychological effects (stress and anxiety) and nurse performance in the COVID-19 isolation ward at Bhakti Dharma Husada General Hospital in Surabaya (Twistiandayani et al., 2022). A decline in performance can affect work productivity (Sari, 2022). Psychologically, prolonged mental stress and anxiety can trigger burnout (Alam, 2022). Implementing preventive strategies to maintain employee well-being and ensure optimal organizational performance is essential to avoid or reduce the potential for burnout (Panjaitan & Lestari, 2025).

Workers experiencing burnout may become less productive. Therefore, it is crucial to implement effective work-time management, provide training in effective communication between staff and patients, offer skills in managing emotions at work, allow time for relaxation during breaks, ensure social support from colleagues and supervisors, and foster spiritual well-being through religious practices (Pokhrel, 2024). Therefore, work-related stress is a key factor that must be addressed in efforts to improve nurses' performance, particularly in demanding and high-pressure work environments such as hospitals.

CONCLUSION

The conclusion of this study is that there is a significant relationship between work stress and work performance, as indicated by a bivariate test *p-value* of 0.017 and a correlation coefficient of -0.424. The negative correlation indicates that the higher the level of work stress experienced, the lower the respondents' work performance.

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