



Impact of Workload on Work-Life Balance among Emergency Nurses

Yulia Ardiyanti¹, Hesti Fathan Nurfaiz Fauziah¹, Nursafaati¹, Fatikhah¹, Nursafaati¹, Alvi Ratna Yuliana²

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Abstract

Background: Hospitals are health service institutions that operate continuously to meet patient needs. According to the Law of the Republic of Indonesia Number 38 of 2014 concerning Nursing, nurses are responsible for providing care 24 hours a day. Nurses working in emergency departments must demonstrate high levels of dexterity, competence, and vigilance to respond quickly to critical situations. The demanding nature of emergency care can increase workload and affect nurses' well-being, including their work-life balance. Understanding the relationship between workload and well-being is essential for hospitals to maintain quality care and support their staff.

Objective: To determine the relationship between nurse workload levels and emergency department nurses' well-being (work-life balance) at Roemani Muhammadiyah Hospital, Semarang.

Method: This study employed a descriptive correlational design with a cross-sectional approach. A total of 40 emergency department nurses were recruited using purposive sampling. Data on workload and well-being were collected using structured questionnaires and analyzed using correlation tests.

Results: There was a positive relationship between workload and work-life balance, indicating that as workload increased, nurses experienced a corresponding increase ($r = 0.545$; $p \text{ value} = 0.000$) in their perceived work-life balance. This indicates that higher workload levels are associated with higher well-being scores among emergency department nurses.

Conclusion: The findings provide insight into how workload and well-being interact. Hospitals can use these results to design policies and interventions to maintain nurses' work-life balance and support staff welfare in high-demand settings such as emergency departments.

1. Department of Nursing, Faculty of Health Sciences, Universitas Muhammadiyah Kendal Batang, Indonesia
2. Department of Nursing, Faculty of Health Sciences, Institut Teknologi Kesehatan Cendekia Utama Kudus, Indonesia

Corresponding author:

Hesti Fathan Nurfaiz Fauziah

Email:

hestifathannurfaizfauziah22@gmail.com

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INTRODUCTION

A hospital is a healthcare institution that provides promotive, preventive, curative, and rehabilitative services through outpatient, inpatient, and emergency care (Rifla & Sni Syam, 2024). The success of hospital services is determined by infrastructure, the number of medical personnel, management systems, and the quality of human resources, particularly nurses, who are the spearheads of nursing care (Ginting et al., 2022). According to Law of the Republic of Indonesia Number 38 of 2014 concerning Nursing, nurses provide direct and indirect nursing services to clients 24 hours a day using a systematic nursing process approach (Afandi & Putri, 2023).

The global nursing deficit has reached crisis levels, with 5.9 million additional nurses needed worldwide to meet basic healthcare demands (Bandeali et al., 2023). Emergency departments bear disproportionate strain, exhibiting 32% higher staff turnover than other hospital units (Wise et al., 2015). Southeast Asian data reveals emergency nurses average 14.7 overtime hours weekly

- 47% above the nursing sector mean (Norful et al., 2023). Indonesia's emergency nursing workforce faces particularly acute challenges, with 91% reporting insufficient recovery time between shifts (Kusumawati et al., 2024).

Emergency department nurses must possess dexterity, skill, and high alertness to care for critically ill patients (Labrague, 2024). These demands often result in physical workloads such as lifting patients, administering IVs, monitoring vital signs, and mental workloads such as assisting patients and families, establishing effective communication, and working in emergencies (Sevedzem, 2024). High workloads, if not managed, can lead to work stress and reduce nurse well-being (de Wijn & van der Doef, 2022). One important indicator of well-being to consider is work-life balance, an individual's ability to balance work demands with their personal life (Sekyere, 2025).

Previous research has shown a relationship between workload, job stress, and work-life balance among nurses, particularly in the emergency department, which



has a high service intensity (Puspitasari et al., 2024). Based on a pre-survey at the Emergency Department of Roemani Muhammadiyah Hospital, Semarang, nurses reported an increasing number of patients and a heavy workload. This situation encourages further research into the relationship between workload levels and emergency department nurses' well-being (work-life balance) at Roemani Muhammadiyah Hospital, Semarang.

METHOD

This study employed a quantitative approach with a descriptive correlational design using a cross-sectional method; data were collected at a single point in time. The aim was to examine the relationship between nurses' workload and the well-being of emergency unit nurses (work-life balance) at Roemani Muhammadiyah Hospital, Semarang. The study took place in the Emergency Department of Roemani Muhammadiyah Hospital, Semarang.

The population consisted of all 45 nurses on duty in the Emergency Department. A sample of 40 nurses was selected using the Slovin formula and purposive sampling based on inclusion criteria: nurses who have worked at Roemani Muhammadiyah Hospital for at least one year (permanent employees), work morning, afternoon, or night shifts, and consented to participate.

Primary data were collected using two standardized questionnaires. The nurses' workload was measured by the NASA Task Load Index (NASA-TLX), a validated instrument with demonstrated reliability (Cronbach's alpha = 0.89) and validity in healthcare settings, adapted and translated into Indonesian following standard forward-backward translation procedures. Work-life balance was assessed using the Survey Work-Home Interaction-Nijmegen (SWING) questionnaire, consisting of 20 items and showing good construct validity (CFI = 0.94) and internal consistency (Cronbach's alpha = 0.87) in nursing populations. Both instruments were tested for validity and reliability in a pilot study prior to data collection. Additionally, observations and brief interviews supported the quantitative data.

Secondary data were obtained from the Human Resources and Nursing Departments of Roemani Muhammadiyah Hospital, including hospital profiles, nurse staffing, work schedules/shifts, and existing employee welfare policies, to contextualize the findings.

Data analysis was performed univariately to describe respondent characteristics and bivariately using the Spearman Rank correlation test to determine the relationship between workload and work-life balance, with significance set at $p \leq 0.05$.

Ethical approval was granted by the Roemani Hospital Health Research Ethics Committee. Permission to conduct the study was also obtained from the management of Roemani Muhammadiyah Hospital, Semarang. Written informed consent was acquired from all participants prior to data collection, ensuring confidentiality and voluntary participation.

RESULTS

Table 1. presents the characteristics of the 40 emergency department nurses at Roemani Muhammadiyah Hospital Semarang, covering age, gender, educational level, and length of service. Half of the respondents were aged 31–40 years (50%), with an equal proportion of males and females (50% each). Most respondents had a Diploma/Academy of Nursing (90%), while only a small percentage held a Bachelor of Nursing degree (2.5%) or were Professional Nurses (7.5%). Regarding length of service, the largest proportion had worked for 6–10 years (32.5%), followed by 11–15 years (25%), 1–5 years (17.5%), 16–20 years (17.5%), 21–25 years (5%), and more than 26 years (2.5%).

Table 1. Characteristics of Respondents (n = 40)

Indicators	n	%
Age (years)		
20 – 30	7	17.5
31 – 40	20	50.0
41 – 50	13	32.5
Gender		
Male	20	50.0
Female	20	50.0
Educational Level		
Diploma/Academy of Nursing (D3)	36	90.0
Bachelor of Nursing (S1)	1	2.5
Professional Nurse (Ners)	3	7.5
Length of Service (years)		
1-5	7	17.5
6-10	13	32.5
11-15	10	25.0
16-20	7	17.5
21-25	2	5.0
>26	1	2.5

Table 2. shows the relationship between nurses' workload and the work-life balance of Emergency nurses. The results of the Spearman Rank correlation analysis indicate a significant positive relationship between workload and Emergency nurses' work-life balance ($r = 0.545$; $p \text{ value} = 0.000$), meaning that the higher the workload, the higher the nurses' work-life balance score in the emergency department of Roemani Muhammadiyah Hospital, Semarang.

Table 2. Relationship between Nurses' Workload and Work-Life Balance at the Emergency Department of Roemani Muhammadiyah Hospital Semarang (n = 40)

Indicators	Work-life balance level			Total	r	p
	Low	Moderate	High			
Workload						
Low	0	2	17	19	0.545	0.000
Moderate	0	1	6	7		
High	1	3	10	14		
Total	1	6	33	40		

DISCUSSION

The study results show a significant positive relationship between workload and the well-being of nurses in the emergency department at Roemani Muhammadiyah Hospital, Semarang. This indicates that the higher the workload, the higher the level of well-being (Adhyka et al., 2024). This condition can occur because a high



workload is usually accompanied by significant responsibilities, which are often offset by compensation in the form of salary, benefits, and work facilities (Adhyka et al., 2024). This finding aligns with research (Anam et al., 2024) which states that companies or hospitals that provide good employee welfare have an impact on increased work discipline and job satisfaction.

Nurses are healthcare workers who play a crucial role in providing comprehensive services, encompassing patients' biological, social, cultural, and spiritual aspects (Aji, 2023). To maintain service quality, nurse performance must continuously improve in terms of technical skills, discipline, and the implementation of nursing care (Pujiastuti et al., 2023). According to Fortuna, (2025), nurse performance evaluation can be seen from work discipline, clinical skills, and the quality of service provided. Management support for adequate work welfare will directly impact nurse performance.

Furthermore, emergency department nurses face a workload that impacts not only their professional lives but also their personal lives. Most emergency department nurses are married, so they strive to balance work responsibilities with their roles at home (Fatimah, 2022). This situation is related to the concept of work-life balance, which is an individual's ability to balance work and family commitments to achieve satisfaction in both areas (Putri & Pramudita, 2025).

This finding is also supported by research by Sinaga, (2024) which shows the influence of workload and well-being on job satisfaction. Work well-being is closely related to employee comfort and positive emotional states, ultimately influencing motivation and performance (Kushariadi, 2025). This finding is reinforced by Kushariadi, (2025) opinion, which states that job satisfaction is influenced by intrinsic factors of the job, rewards, supervision, coworkers, and supportive working conditions.

Thus, the results of this study strengthen the evidence that good workload management, accompanied by adequate welfare, is crucial for maintaining work-life balance for emergency department nurses. These efforts support the quality of hospital services and help nurses maintain their quality of life outside of work.

CONCLUSION

This study shows that most emergency department nurses at Roemani Muhammadiyah Hospital, Semarang, are in the heavy workload category and have a high level of well-being (work-life balance). The Spearman Rank correlation analysis results indicate a significant positive relationship between workload and nurses' well-being ($r = 0.545$; p value = 0.000). This means that the higher the workload, the higher the level of well-being received, along with the compensation and facilities provided by the hospital. These findings emphasize the importance of workload management and employee well-being programs to support the performance of nurses as the frontline of healthcare services and maintain a balance between their work and personal lives.

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