The Indonesian Journal of Occupational Safety and Health
2025, 14 (2): 152-160
p ISSN: 2301 8046, e ISSN: 2540 7872
http://doi.org10.20473/ijosh.v14i2.2025.152-160

ORIGINAL ARTICLE

Job and Organizational Factors Determining Nurses' Work Stress at Regional General Hospital

Ikhram Hardi S.[1], Hapsah[2], Yuliati[3], Syafhira Ramadhani[4]

[1,3,4]Department of Occupational Health and Safety, Faculty of Public Health, Universitas Muslim Indonesia, Makassar, Indonesia
Kampus II UMI, Makassar, South Sulawesi, 90231 Indonesia
[2]Faculty of Nursing, Universitas Hasanuddin, Indonesia
Kampus Universitas Hasanuddin Tamalanrea, Makassar, South Sulawesi, 90245, Indonesia

ABSTRACT

Introduction: One of the government hospitals in South Sulawesi is facing various challenges related to nurses' working conditions, such as work stress. Preliminary data show that high work pressure, the nursing shift system, and the ratio of nurses to patients contribute to this condition and are predicted as risk factors that can affect the quality of work life for nurses. **Methods:** This study aim is to examine how organizational and job-related factors affect hospital nurses' work stress at regional hospital. Using a cross-sectional methodology, this study included 167 nurses out of 287 who were chosen by accident sampling. Questionnaires, observations, and interviews were used to gather data, which were then subjected to linear regression analysis (95% CI; α=0.05). **Results:** The results of this study indicate that work stress is significantly influenced by the job factor (p=0.000; β=0.415) and organizational factor (p=0.011; β= -0.229). Emotional demands are the most influential component of job factors on the emergence of stress. **Conclusion:** High job demands, especially emotional burden, significantly increase nurses' work stress, whereas good organizational support can reduce it. These findings indicate the importance of reducing emotional burden and increasing institutional support through mental resilience training, structured debriefing sessions, peer support systems, and psychological counseling services. The results of this study can also be used as a basis for policy making by hospital leaders to be more supportive of nurses' mental well-being and the sustainability of health service quality.

Keywords: job factors, nurses, organizational factors, work stress

Corresponding Author:
Ikhram Hardi S.
Email: ikhram.hardi@umi.ac.id
Telephone: +62 811415451

INTRODUCTION

Work-related stress is a common issue among healthcare workers, particularly nurses, who play an important role in providing healthcare services. A high-pressure work environment and complex tasks frequently raise the risk of stress among nurses. According to research, nearly two-thirds of nurses worldwide face significant stress as a result of heavy workloads, rotating shift systems, and high job demands (Baye *et al.*, 2020).

According to the World Health Organization (WHO), depression affects 3.8% of the global population, including 5% of adults and 5.7% of people over the age of 60, total approximately 280 million people (WHO, 2023). In the United Kingdom, the Labour Force Survey (LFS) 2023 reported 875,000 cases of work-related stress, with a prevalence rate of 2,590 cases per 100,000 workers (Health and Safety Executive (HSE), 2023).

In Southeast Asia, the prevalence of work-related stress is also a growing concern. According to the International Labour Organization (ILO), extended working hours and excessive workloads are among the primary contributors to occupational stress, particularly in the service, manufacturing, and information technology sectors (International Labour Organization, 2022). The lack of adequate workplace stress management policies exacerbates this issue, negatively affecting both employee well-being and organizational productivity. Supporting

Cite this as: *Hardi S., et al. (2025) 'Job and Organizational Factors Determining Nurses' Work Stress at Regional General Hospital', The Indonesian Journal of Occupational Safety and Health, 14(2), pp. 152-160.*

 doi:10.20473/ijosh.v14i2.2025.152-160. Received March 18, 2025; 1st revision May 22, 2025; 2nd revision June 10, 2025; Accepted July 03, 2025; Published: August 31, 2025. Published by Universitas Airlangga.

this, the ASEAN Secretariat (2023) reported that the average stress level among workers in Southeast Asia reached 6.4 on a 10-point scale, with healthcare and technology sectors exhibiting the highest levels. Approximately 60% of employees identified long working hours and workload pressure as major stressors, while 55% of organizations had yet to implement effective stress management strategies.

Because of the high demands, excessive responsibilities, and limited authority, nursing is one of the most stressed professions. This condition is exacerbated by organizational factors such as a lack of decision-making control and workplace interpersonal conflicts (Azemi *et al.*, 2022). According to research conducted in Ethiopia, nurses working in intensive care units are more likely to experience work-related stress due to a demanding work environment and limited supportive resources (Tsegaw, Getachew and Tegegne, 2022).

Data from the Indonesian National Nurses Association (PPNI) shows that 50.9% of nurses in Indonesia experience work-related stress with symptoms such as fatigue, lack of friendliness, and insufficient rest time due to excessive workloads and inadequate salaries. Studies also show a strong negative correlation between work stress and the quality of life, motivation, and job satisfaction of nurses (Zukhri, Suciana and Kusumo, 2021). Additionally, a systematic review highlights that high workload and lack of healthcare personnel are the main factors causing work-related stress in healthcare institutions, including general hospitals (Elmagd, Khamis and Ali, 2024).

Work stress has a broader impact not only on individual nurses but also on organizational performance and the quality of healthcare services. A 2025 study by Anwar *et al.* found that high stress levels among nurses were significantly associated with poorer quality of life—particularly mental health—and diminished caring behaviors, especially in areas involving supervisor conflict, physician interactions, and patient relations. The study further revealed that job stress explained 28% of the variation in nurses' quality of life, highlighting its profound influence on both personal well-being and professional care standards (Anwar *et al.*, 2025)

The mental health of nurses is also greatly affected by work stress. Prolonged stress is linked to the emergence of symptoms of anxiety, depression, and burnout, which can disrupt decision-making and lower the quality of care provided to patients. Azemi *et al.*'s research results in 2022 identified excessive overtime, a large number of patients, and a lack of support systems as the main causes of poor mental health among nurses. As a result, improvements to the work scheduling system and increased organizational support are critical steps towards reducing stress and improving nurses' well-being (Azemi *et al.*, 2022).

Work stress not only affects individual nurses, but it also reduces the overall effectiveness of the healthcare system. High levels of stress lead to higher absenteeism, lower productivity, and higher turnover. In general hospitals, where the number of patients is always high, this impact can be magnified, further burdening already limited resources (Elmagd, Khamis and Ali, 2024).

According to preliminary data from a regional general hospital in Makassar City, the most common causes of work-related stress are demanding working conditions, rotating morning, afternoon, and night shifts, and an increase in the number of patients without a corresponding increase in the number of nurses. These factors not only jeopardise the quality of healthcare services, but they also have a negative impact on nurses' overall well-being.

This study aim is to examine how organizational and job-related factors affect hospital nurses' work stress at regional hospital in Makassar City. The findings of this study are expected to contribute to improved work stress management and healthcare service quality at the hospital.

METHODS

This is a quantitative study that utilizes an observational analytic approach and a cross-sectional study design. This design was chosen because the independent and dependent variables are examined concurrently at a specific time point (Sugiyono, 2014; Swarjana, 2015). This study was carried out from June to December 2024 at a regional public hospital (RSUD) in Makassar City. According to data from South Sulawesi Province's Information and Documentation Management Officer (PPID), the research population consists of all nurses working at the public hospital, a total of 287 people in 2023. The sample size for this study is 167 respondents, calculated using the Slovin formula and chosen using the accidental sampling method. The independent variables in this study are job and organizational factors; the dependent variable is work stress.

The data for the research variables was gathered using a questionnaire. The American Institute of

Stress (AIS) developed the Work Stress Scale questionnaire, which consists of eight items, to assess work stress levels (The Marlin Company and The American Institute of Stress, 2001). This questionnaire has the advantage of providing a clear score interpretation in measuring work stress levels, with a focus on stressors that originate in the workplace. Its simple format enables respondents to finish it quickly. Furthermore, this questionnaire has been validated in several studies to ensure its reliability and validity in measuring workplace stress levels.

The job factor questionnaire measures five aspects: workload, emotional demands, physical demands, workplace support, and work schedule. It consists of 24 questions that have been tested for validity and reliability (Cronbach's alpha = 0.918). Meanwhile, the organizational factor questionnaire assesses nine aspects: organizational structure, policies and procedures, salary and benefits, recognition and promotion, job security, leadership style, training programs, organizational justice, and shift work system, with a total of 36 questions tested for validity and reliability (Cronbach's alpha = 0.959).

After collecting the research data, SPSS for Windows was used to perform descriptive and inferential statistical analyses. Descriptive statistical analysis is used to identify respondents' characteristics based on a variety of factors that influence the research variables. The descriptive analysis results are presented as frequencies and percentages. Data was analyzed using linear regression tests at a 95% confidence level ($\alpha = 0.05$) to address research objectives and hypotheses.

This research was conducted after obtaining approval from the Health Research Ethics Committee (KEPK). Ethical approval was obtained from Sekolah Tinggi Ilmu Kesehatan Maluku Husada, with approval number: RK.188/KEPK/STIK/VIII/2024.

RESULT

Table 1 shows the frequency distribution and percentage of respondent characteristics (age, gender, education level, working hours, length of service, and hospital unit), as well as each research variable (job factors, organizational factors, and work stress), while Table 2 shows the influence of research variables on one another. According to the results in Table 1, the largest proportion of age groups is 36 - 45 years, at 56.3%, while the smallest proportion is 56 - 65 years, at 6.6%. Female nurses make up the majority of the hospital's workforce, accounting for 88.0%.

According to education level, nurses with a professional nursing education level have the highest

Table 1. Characteristics of Respondents and Research Variables (N=167)

Category	Frequency (n)	Percentage (%)
Age Group		
26 – 35 years old	28	16.8
36 – 45 years old	94	56.3
46 – 55 years old	34	20.3
56 – 65 years old	11	6.6
Gender		
Male	20	12.0
Female	147	88.0
Educational Level		
D3	29	17.4
D4	4	2.4
Bachelor of Nursing	43	25.7
Professional Nurse Program	86	51.5
Master's Degree	5	3.0
Working Hours		
≤ 8 hours	146	87.4
> 8 hours	21	12.6
Work Tenure		
≤ 5 years	25	15.0
> 5 years	142	85.0
Hospital Unit		
Inpatient Unit	125	74.9
Outpatient Unit	9	5.4
Emergency Unit	33	19.7
Job Factors		
Low	21	12.6
Moderate	110	65.9
High	36	21.6
Organizational Factors		
Moderate	10	6.0
High	157	94.0
Work Stress		
Lower	118	70.7
Fairly Low	29	17.4
Moderate	15	9.0
Severe	1	0.6
Dangerous	4	2.4

proportion (51.5%), while those with a D4 education level have the lowest proportion (2.4%), 87.4% of nurses work less than eight hours per day. The group with more than 5 years of service at the RSUD has the highest proportion (85.0%), while the group with fewer than 5 years has the lowest proportion (15.0%). The majority of nurses work in inpatient units (74.9%), while the minority work in outpatient units (5.4%).

In the Job Factors variable, the majority of respondents (65.9%) reported a moderate level, 21.6% a high level, and 12.6% a low level. On the organizational factors, the vast majority of respondents (94.0%) reported a high level, with only 6.0% reporting a moderate level. In terms of work stress, 70.7% of respondents reported low levels, followed by 17.4% with fairly low stress, 9.0% with moderate stress, 0.6% with severe stress, and 2.4% with dangerous levels. These findings show that work factors are moderately dominant, organizational factors are highly dominant, and respondents have a generally low level of work-related stress.

According to Table 2, 8.3% of nurses with high job factor levels experience stress in the dangerous category, whereas no nurses with low job factors do. Furthermore, the majority of nurses with low job factors are lower stress (90.5%), as opposed to 55.6% in the high job factor group.

The p-value of 0.000 indicates that work factors have a significant impact on work stress, with a positive path coefficient of 0.415 indicating that the higher the work factors, the greater the stress levels experienced by nurses.

Aside from job factors, organizational factors have been shown to have a significant impact on nurses' work stress levels. The majority of nurses with high organizational factors are in the low-stress category (74.5%), whereas only 10.0% of those with moderate organizational factors are stressed. In contrast, 50.0% of nurses with moderate organizational factors reported stress, compared to only 6.4% of nurses with high organizational factors. With a p-value of 0.011 and a negative path coefficient of -0.229, these findings show that the better the organizational factors, the lower the work stress experienced by nurses.

Table 3 presents the results of a multiple regression analysis investigating the effects of various job factor aspects on nurses' work stress levels. Among the four aspects analyzed, only emotional demands were found to have a statistically significant impact ($\beta = 0.254$; $p = 0.042$).

DISCUSSION

Psychosocial hazards in the workplace, such as excessive workloads and prolonged working hours, have been recognized as significant contributors to work stress and chronic fatigue. These conditions not only jeopardize workers' mental and physical health but also negatively impact overall productivity and

Table 3. Multiple Regression Analysis of Job Factor Aspects and Nurses' Work Stress

Job Factor Aspects	B	Std. Error	β (Beta)	t	Sig. (p)
Workload	0.283	0.165	0.188	1.716	0.088
Emotional Demands	0.410	0.200	0.254	2.053	0.042*
Physical Demands	0.052	0.209	0.025	0.246	0.806
Work Schedule	0.089	0.181	0.047	0.489	0.625

Table 2. The Effect of Job Factors and Organizational Factors on Nurses' Work Stress at a Regional General Hospital (RSUD) in Makassar City

Category	Work Stress										P value	β Coefficient
	Dangerous		Severe		Moderate		Fairly Low		Lower			
	n	%	n	%	n	%	n	%	n	%		
Job Factors												
High	3	8.3	1	2.8	5	13.9	7	19.4	20	55.6	0.000	0.415
Moderate	1	0.9	0	0.0	8	7.3	22	20.0	79	71.8		
Low	0	0.0	0	0.0	2	9.5	0	0.0	19	90.5		
Organizational Factors												
High	4	2.5	1	0.6	10	6.4	25	15.9	117	74.5	0.011	-0.229
Moderate	0	0.0	0	0.0	5	50.0	4	40.0	1	10.0		

organizational efficiency. In particular, the lack of work-life balance and insufficient recovery time are closely linked to increased risks of anxiety, burnout, and diminished performance (International Labour Organization, 2022). Nursing is known as a stressful job because it involves complex job demands and needs, and high expectations, excessive responsibilities, and limited authority have all been identified as major stressors (Babapour, Gahassab-Mozaffari and Fathnezhad-Kazemi, 2022).

The results of this study indicate that job factors have a significant positive impact on nurse work stress (p=0.000). This confirms that high workloads and disproportionate job demands can trigger stress. Theoretically, these results can be explained through the Job Demands-Resources (JD-R) model by Bakker and Demerouti, which states that high job demands (e.g., long working hours, significant responsibilities, or complex tasks) without adequate supporting resources can increase stress (Bakker and Demerouti, 2007). In the context of healthcare workers, nurses often face emergency situations, an imbalance between the number of patients and the workforce, as well as pressure to provide quality service.

The results of this study strengthen the existing evidence that job factors are the most dominant predictors of nurses' work stress. This is demonstrated in the structural equation model output where job factors show a strong and statistically significant positive path coefficient of 0.415 (p = 0.000), indicating that as job demands increase, work stress levels among nurses also significantly rise. This finding further confirms the relevance of the Job Demands-Resources (JD-R) model (Bakker and Demerouti, 2007), which explains that high job demands such as long working hours, emotional burdens, and tight deadlines without adequate resources or organizational support, can lead to high psychological stress and even burnout.

In addition, Table 2 clearly shows that among nurses exposed to high job demands, a notable percentage still experienced moderate to dangerous stress levels (e.g., 13.9% moderate, 8.3% dangerous), in contrast to nurses under low job factor conditions, 90.5% of whom experienced low stress. These patterns empirically affirm that job-related stressors especially when intense remain the most critical contributors to stress.

The regression results in Table 3 reveal that Emotional Demands is the only job factor with a statistically significant positive effect on stress levels (β = 0.254; p = 0.042). This finding supports a growing body of evidence emphasizing that emotional labor and patient-facing demands are central contributors to burnout and psychological distress among nurses (Babapour, Gahassab-Mozaffari and Fathnezhad-Kazemi, 2022). Nursing, by its very nature, requires frequent emotional regulation in response to patient suffering, end-of-life care, or family demands elements that are consistently linked to increased work stress.

Although Workload (β = 0.188; p = 0.088) approached statistical significance, the relationship was not robust, suggesting that the quantity of work may be less predictive of stress than the emotional intensity of tasks performed. Other job aspects, such as Physical Demands and Work Scheduling, did not show significant associations. These results indicate that emotional demands surpass both physical and quantitative workload in predicting stress levels—likely reflecting the psychological complexity and emotional toll inherent in the nursing profession.

This research is also in line with the stress theory by Lazarus and Folkman, which states that work stress arises when job demands exceed an individual's ability to cope with them (Lazarus and Folkman, 1984). The research by Zhang, Huang and Li (2022) also supports these findings, showing that high workload is a major factor causing stress among healthcare workers. To mitigate this impact, hospitals can consider policies such as more flexible schedule rotations, increasing the number of nursing staff, or more equitable task allocation.

The results of this study also show that the higher the job factor, the higher the level of stress experienced by nurses. This is in line with the Job Demand-Control Model theory by Karasek, (1979), which states that high job demands with low job control will increase work stress levels. In a hospital environment, nurses often face high workloads, emotional pressure due to interactions with patients, and heavy administrative demands, all of which can lead to significant work-related stress (Lazarus and Folkman, 1984). High work stress can impact the physical and emotional fatigue of nurses, which has the potential to reduce the quality of nursing services to patients.

In addition, various international studies also confirm the strong influence of work factors on nurses' work stress. The findings of Alruwaili *et al.* (2022) among emergency nurses in Saudi Arabia reveal that excessive workload, staff shortages, and inadequate compensation are the primary sources of work stress, while prayer and socializing with friends are the dominant coping

strategies. These results underscore the necessity for policy reforms to enhance nurses' well-being and workplace conditions, particularly addressing workload management, equitable remuneration, and resource availability. The study highlights critical implications for healthcare institutions and policymakers to prioritize systemic improvements in nursing practice environments. This conclusion aligns with Palestinian findings Albelbeisi *et al.*, (2024), identifying critical work stressors including excessive workload, staffing deficits, insufficient recognition, inequitable compensation, time pressures, and suboptimal managerial practices. Similarly, the research by Clinchamps *et al.*, (2024) emphasizes that occupational stress stemming from high job demands and low autonomy, as per the Job-Demand-Control Model, is associated with reduced physical activity and heightened sedentary behavior, potentially aggravating health risks among workers.

The study by Hu *et al.*, (2024) reveals that job factors such as frontline experience, night shift work, and extended working hours significantly elevate the risk of work stress, anxiety, and depression among nurses. In line with this, Jessica *et al.*, (2023) found that work pressure arising from an unsupportive work environment and work-life imbalance significantly contributes to increased work stress, ultimately reducing nurses' job satisfaction in hospital settings.

Another study that aligns with this finding is by Al Muala *et al.* (2022), who found that high workload, organizational injustice, and workplace bullying are significant factors that exacerbate work-related stress and increase turnover intentions among nurses in Jordan's public hospitals.

A similar finding was reported by Alrashidi *et al.* (2022), who noted that most healthcare professionals, particularly nurses, experienced high levels of work-related stress, with excessive workload, role ambiguity, and departmental pressure identified as major contributors. Recent findings by Gmayinaam *et al.* (2024) further support this pattern, demonstrating that heavy workload, exposure to infectious diseases, staff shortages, and strained interpersonal relationships significantly increased stress levels among nurses in hospitals in Ghana, with impacts including physical exhaustion, emotional frustration, and cognitive difficulties. Overall, these results indicate that demanding work factors, particularly in the form of clinical workload and organizational pressures, consistently serve as major triggers of occupational stress among nurses across different national contexts and healthcare systems.

Thus, this study reinforces that job factors especially emotional demands are the primary determinants of nurses' work stress. Policies targeting reduction of emotional burden, better task allocation, and increased job control are therefore critical to mitigating stress in nursing professions.

Furthermore, the results of this study found that organizational factors have a significant negative impact on work stress (b=-0.229; p = 0.011). These findings are highly relevant to the Perceived Organizational Support theory, which states that when individuals feel supported by the organization, they tend to have higher motivation, lower stress, and better work well-being. Organizational support can take the form of a conducive work environment, recognition of individual achievements, and policies that protect employee well-being (Eisenberger *et al.*, 1986).

The study by Parashakti and Ekhsan (2022) supports this finding by discovering that organizational factors have a positive and significant impact on employee work stress. This means that the higher the organizational demands, the higher the stress levels experienced by employees, and it was also found that work stress affects the quality of life of nurses, where work stress will impact all dimensions of an individual's quality of life, including physical, psychological, social relationships, and environment. In this case, the Regional General Hospital (RSUD) in the city of Makassar, which is the location of this research, can adopt strategic measures such as leadership training programs, reward systems, and periodic assessments of job satisfaction.

In fact, Table 2 indicates that 74.5% of nurses who perceived high organizational support reported lower stress levels, while among those with only moderate support, 50% experienced moderate stress, and 40% experienced fairly low stress, showing less favorable outcomes. This emphasizes that organizational quality is a critical moderator in the stress experience.

Based on the results of this study, it also shows that the better the organizational factors, the lower the stress levels experienced by nurses (b= -0.229). These findings are consistent with the Person-Environment Fit theory proposed by Edwards and Cooper (1990), which states that the alignment between individuals and their work environment will enhance psychological well-being and reduce work-related stress. Organizational factors such as

supportive leadership, good communication, and work-life balance play a significant role in reducing nurses' work stress levels. When the organization provides sufficient support, such as flexibility in working hours and policies that favor the well-being of nurses, work-related stress can be minimized.

These findings align with international studies emphasizing the critical role of organizational factors in managing nurses' work-related stress. Ghaderi *et al.* (2024) reinforced this perspective by identifying workplace dissatisfaction, inadequate managerial support, and insufficient organizational resources as primary predictors of heightened stress among nurses during the COVID-19 pandemic. Further supporting this, Berutu and Ilhami (2024) demonstrated that a positive organizational climate characterized by transparent structures and performance recognition significantly reduces nurses' job stress, though stress itself does not mediate job satisfaction. Additionally, Liu *et al.* (2021) affirmed that unsupportive organizational environments directly exacerbate nurses' burnout, with low social support and diminished psychological capital intensifying this adverse effect. In line with these results, Liao *et al.* (2022) found that unsupportive organizational environments, heavy workloads, and ineffective leadership significantly contributed to increased work stress among hospital nurses.

Referring to various studies, it can be concluded that strong organizational support through supportive leadership, effective communication, recognition of achievements, role clarity, and work-life balance policies plays a significant role in reducing nurses' work stress levels.

Therefore, although job factors are the most dominant contributors to stress, the presence of strong organizational support can significantly reduce their negative impact. A comprehensive approach to stress reduction in nursing must therefore address both domains simultaneously minimizing emotional demands and maximizing organizational support.

In conclusion, this study provides compelling evidence that job factors, especially emotional demands, are the strongest predictors of work stress among nurses, while organizational support plays a protective role. Healthcare institutions should implement dual strategies—reducing job stressors and enhancing support structures—to promote nurse well-being, retain experienced staff, and improve overall healthcare quality.

Moving forward, these findings should be actively disseminated to hospital leadership and key decision-makers such as hospital directors so that evidence-based policies can be formulated and implemented to address the root causes of occupational stress. Strategic awareness among top management is essential to ensure that stress-reduction measures are institutionalized, resource allocations are prioritized appropriately, and a culture of psychosocial safety is promoted across healthcare systems.

CONCLUSION

This study asserts that job factors and organizational factors significantly affect the level of work stress among nurses, with job factors being the most influential factor in the occurrence of work stress. In terms of Job factors, emotional demands are the most influential in the emergence of work stress. The higher the emotional burden for nurses, the greater the work stress they experience. The workload factor shows an almost significant influence, while the physical demands, work scheduling, and workplace support factors do not show a significant relationship. This evidence indicates that the emotional intensity of nurses' work, such as facing patient suffering, caring for critically ill patients, or interacting with anxious patients' families, triggers stress more than physical demands or the quantity of work alone. On the contrary, organizational factors show a significant negative relationship with work stress, meaning that the better the organizational support, the lower the work stress. This proves that positive organizational support can act as a buffer against work stress. These findings emphasize the importance of improving workload structurally and creating an emotionally supportive work environment for healthcare institutions. Therefore, it is recommended that organizations undertake measures such as mental resilience training, structured debriefing sessions, peer support systems, and psychological counseling services that are sensitive to the cultural context and emotional needs of nurses.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

AUTHORS' CONTRIBUTION

IHS develops the manuscript concept, writes the manuscript draft, analyses data, and interprets the

findings. YU reviewed the manuscript's content, SR assisted with data collection and entry, and HA assisted with language aspects and the manuscript's final review and editing. All authors approved the manuscript's final version for submission.

ACKNOWLEDGEMENTS

The researchers sincerely thank the Rector of the Muslim University of Indonesia for funding this research. We also thank the Head of LP2S UMI and all staff for their facilitation and assistance in organizing the faculty's flagship research. We also want to thank the Head of the Investment and One-Stop Service Office, as well as the Head and Staff of Labuang Baji Hospital Makassar, for their permission and support. Not to mention, the researchers appreciate the contributions of all parties who assisted, both directly and indirectly, in the completion of this study

REFERENCES

Albelbeisi, A.H. *et al.* (2024) 'Occupational Stress and Associated Sources and Risk Factors among Nurses in Gaza Strip, Palestine: A Cross-sectional Survey', *Nursing Open*, 11(8), pp. 1–8. Available at: https://doi.org/10.1002/nop2.70004.

Alrashidi, N.A. *et al.* (2022) 'Prevalence of Work-Related Stress and its Associated Factors among Healthcare Professionals at Jazan Region, Saudi Arabia', *Journal of Pharmaceutical Negative Results*, 13(S01), pp. 1174–1183. Available at: https://doi.org/10.47750/pnr.2022.13.s01.144.

Alruwaili, M.M. *et al.* (2022) 'Experiences, Perceptions, and Coping Patterns of Emergency Department Nurses with Occupational Stressors in Saudi Arabian Hospitals: Mixed-Method Study', *Healthcare*, 10(8), p. 1504. Available at: https://doi.org/10.3390/healthcare10081504.

Anwar, B. *et al.* (2025) 'Work Stress in Nurses and Its Influence on Patient Care and Quality of Life', *Biological and Clinical Sciences Research Journal*, 6(1), pp. 142–145. Available at: https://doi.org/https://doi.org/10.54112/bcsrj.v6i1.1538.

ASEAN Secretariat (2023) ASEAN Employment Outlook: The Quest for Decent Work in Platform Economy: Issues, Opportunities and Ways Forward. Jakarta.

Azemi, S. *et al.* (2022) 'Work-related Stress, Self-Efficacy and Mental Health of Hospital Nurses', *Work*, 72(3), pp. 1007–1014. Available at: https://doi.org/10.3233/WOR-210264.

Babapour, A.R., Gahassab-Mozaffari, N. and Fathnezhad-Kazemi, A. (2022) 'Nurses' Job Stress and its Impact on Quality of Life and Caring Behaviors: A Cross-sectional Study', *BMC Nursing*, 21(75), pp. 1–10. Available at: https://doi.org/10.1186/s12912-022-00852-y.

Bakker, A.B. and Demerouti, E. (2007) 'The Job Demands-Resources Model: State of the Art', *Journal of Managerial Psychology*, 22(3), pp. 309–328. Available at: https://doi.org/https://doi.org/10.1108/02683940710733115.

Baye, Y. *et al.* (2020) 'Nurses' Work-related Stress and Associated Factors in Governmental Hospitals in Harar, Eastern Ethiopia: A Cross-sectional Study', *PLoS ONE*, 15(8 August), pp. 1–12. Available at: https://doi.org/10.1371/journal.pone.0236782.

Berutu, M.B. and Ilhami, S.D. (2024) 'Organizational Climate and Job Satisfaction of Nurses: The Mediating Roles of Job Stress', *Organizational Psychology*, 14(4), pp. 136–150. Available at: https://doi.org/10.17323/2312-5942-2024-14-4-136-150.

Clinchamps, M. *et al.* (2024) 'Exploring the Relationship between Occupational Stress, Physical Activity and Sedentary Behavior using the Job-Demand-Control Model', *Frontiers in Public Health*, 12(October), pp. 1–13. Available at: https://doi.org/10.3389/fpubh.2024.1392365.

Edwards, J.R. and Cooper, C.L. (1990) 'The Person-environment Fit Approach to Stress: Recurring Problems and Some Suggested Solutions', *Journal of Organizational Behavior*, 11(4), pp. 293–307. Available at: https://doi.org/10.4324/9781315196244-37.

Eisenberger, R. *et al.* (1986) 'Perceived Organizational Support', *Journal of Applied Psychology*, 71, pp. 500–507. Available at: https://doi.org/10.1037/0021-9010.71.3.500.

Elmagd, M.H.A., Khamis, H.M. and Ali, H.Y.S. (2024) 'Determinant of Work Related Stress among Nursing Staff: A Systematic Review', *Tanta Scientific Nursing Journal*, 33(2), pp. 310–326.

Ghaderi, Z. *et al.* (2024) 'Predictive Factors of Occupational Stress among Nurses during the COVID-19 Pandemic: A Cross-sectional Study in Kashan, Iran', *BMC Nursing*, 23(1), pp. 1–8. Available at: https://doi.org/10.1186/s12912-024-01967-0.

Gmayinaam, V.U. *et al.* (2024) 'Work-related Stress among Nurses: A Comparative Cross-sectional Study of Two Government Hospitals in Ghana', *BMC Public Health*, 24(2257). Available at: https://doi.org/10.1186/s12889-024-19757-3.

Health and Safety Executive (HSE) (2023) Work-related stress, depression or anxiety statistics in Great Britain, 2023. Available at: https://www.hse.gov.uk/statistics/assets/docs/stress.pdf.

Hu, X. *et al.* (2024) 'Risk Factors for Anxiety, Depression, Stress, and their Comorbidities among Nurses: A Prospective Cohort From 2020 to 2022', *BMC Nursing*, 23(916), pp. 1–11. Available at: https://doi.org/10.1186/s12912-024-02577-6.

International Labour Organization (2022) Working Time and Work-life Balance around the World. Geneva: International Labour Organization Publications.

Jessica, N. *et al.* (2023) 'The Effect of Work Environment and Work-life Balance on Job Satisfaction: Work Stress as a Mediator', *Journal of Economics, Management and Trade*, 29(1), pp. 54–65. Available at: https://doi.org/10.9734/jemt/2023/v29i11074.

Karasek, R.A. (1979) 'Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign', *Administrative Science Quarterly*, 24(2), pp. 285–308. Available at: https://doi.org/10.2307/2392498.

Lazarus, R.S. and Folkman, S. (1984) *Stress, Appraisal, and Coping*. New York: McGraw-Hill, Inc.

Liao, H. *et al.* (2022) 'Work Stress, Burnout, Occupational Commitment, and Social Support among Chinese Pediatric Nurses: A Moderated Mediation Model', *Journal of Pediatric Nursing*, 67, pp. e16–e23. Available at: https://doi.org/10.1016/j.pedn.2022.10.009.

Liu, Y. *et al.* (2021) 'Job Stress, Psychological Capital, Perceived Social Support, and Occupational Burnout Among Hospital Nurses', *Journal of Nursing Scholarship*, 53(4), pp. 511–518. Available at: https://doi.org/10.1111/jnu.12642.

Al Muala, I. *et al.* (2022) 'Evaluating the Effect of Organizational Justice on Turnover Intention in the Public Hospitals of Jordan: Mediated-Moderated Model of Employee Silence, Workplace Bullying, and Work Stress', *International Journal of Professional Business Review*, 7(3), pp. 1–23. Available at: https://doi.org/10.26668/businessreview/2022.v7i3.0526.

Parashakti, R.D. and Ekhsan, M. (2022) 'Peran Burnout Sebagai Mediasi Pada Pengaruh Stres Kerja Terhadap Kinerja Karyawan', *Jurnal Ekonomi & Ekonomi Syariah*, 5(1), pp. 365–373.

Sugiyono (2014) *Metode Penelitian Kombinasi (Mixed Methods)*. 6th edn. Bandung: Alfabeta.

Swarjana, I.K. (2015) *Metodologi Penelitian Kesehatan (Edisi Revisi)*. 2nd edn. Yogyakarta: Penerbit ANDI.

The Marlin Company and The American Institute of Stress (2001) The Workplace Stress ScaleTM. Available at: https://www.stress.org/wp-content/uploads/2023/02/The-Workplace-Stress-Scale.pdf.

Tsegaw, S., Getachew, Y. and Tegegne, B. (2022) 'Determinants of Work-Related Stress Among Nurses Working in Private and Public Hospitals in Dessie City, 2021: Comparative Cross-Sectional Study', *Psychology Research and Behavior Management*, 15(July), pp. 1823–1835. Available at: https://doi.org/10.2147/PRBM.S372882.

World Health Organization (WHO) (2023) Depressive disorder (depression). Available at: https://www.who.int/news-room/fact-sheets/detail/depression.

Zhang, X., Huang, L. and Li, Y. (2022) 'Organizational Support and Well-being among Nurses: Evidence from a Large-scale Study in China', *BMC Nursing*, 21(1), pp. 1–12.

Zukhri, S., Suciana, F. and Kusumo, H.P. (2021) 'Hubungan Stres Kerja dan Kepuasan Kerja Dengan Kualitas Hidup Perawat ICU-ICCU RSU Islam Klaten', *Prosiding Seminar Nasional UNIMUS*, 4, pp. 1731–1739.