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REVIEW

Systematic review on occupational stress and its risk factors among nurses

Revisión sistemática sobre el estrés laboral y sus factores de riesgo entre el personal de enfermería

Yousef Jaradat[1], Obaida Mahareq[1], Salsabeel Ganazreh[1], Thabet Manasreh[1], Malak Shaban[1]

[1]Nursing College, Palestine polytechnic university – Hebron.Palestine.

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Corresponding author: Yousef Jaradat

ABSTRACT

Introduction: occupational stress is a major challenge in nursing, with implications for workforce well-being, patient safety, and health system resilience. Nurses face multidimensional stressors, including workload, shift work, and limited resources, which may vary across global and regional contexts.
Objective: this systematic review aimed to synthesize recent evidence on the prevalence, determinants, and consequences of occupational stress among nurses, with attention to universal and context-specific risk factors.
Method: guided by the PRISMA 2020 framework, a comprehensive search was conducted in PubMed, CINAHL, Scopus, and PsycINFO, covering studies published between January 2015 and March 2024. Eligible studies included nurses working in hospital or healthcare settings and assessed occupational stress using validated tools. Data extraction and quality appraisal were performed independently by two reviewers using the Joanna Briggs Institute (JBI) Critical Appraisal Tools.
Results: fifteen studies met inclusion criteria, conducted across Asia, Africa, the Middle East, and Europe. Reported prevalence of occupational stress ranged from moderate to high. Common determinants included heavy workload, shift work, inadequate staffing, role ambiguity, limited managerial support, and workplace violence. The COVID-19 pandemic further intensified stress, driven by infection risk and inadequate protective equipment. Context-specific stressors included resource shortages in low- and middle-income countries and political instability in regions such as Jordan and Palestine. Consequences included burnout, emotional exhaustion, turnover intention, and adverse effects on patient safety and care quality.
Conclusion: occupational stress among nurses remains a significant global issue with critical personal and systemic consequences. Multilevel interventions—targeting organizational support, staffing, safe workplaces, and resilience-building—are urgently required, especially in resource-limited and conflict-affected settings.

Keywords: Occupational Stress; Nurses; Burnout; Patient Safety; Healthcare Workforce.

RESUMEN

Introducción: el estrés laboral es un reto importante en la enfermería, con implicaciones para el bienestar de la plantilla, la seguridad de los pacientes y la resiliencia del sistema sanitario. Las enfermeras se enfrentan a factores estresantes multidimensionales, como la carga de trabajo, los turnos y los recursos limitados, que pueden variar según el contexto global y regional.
Objetivo: esta revisión sistemática tenía como objetivo sintetizar las pruebas recientes sobre la prevalencia, los determinantes y las consecuencias del estrés laboral entre las enfermeras, prestando atención a los factores de riesgo universales y específicos del contexto.

Método: guiados por el marco PRISMA 2020, se realizó una búsqueda exhaustiva en PubMed, CINAHL, Scopus y PsycINFO, que abarcó estudios publicados entre enero de 2015 y marzo de 2024. Los estudios elegibles incluían a enfermeras que trabajaban en hospitales o entornos sanitarios y evaluaban el estrés laboral mediante herramientas validadas. La extracción de datos y la evaluación de la calidad fueron realizadas de forma independiente por dos revisores utilizando las herramientas de evaluación crítica del Joanna Briggs Institute (JBI).
Resultados: quince estudios cumplieron los criterios de inclusión, realizados en Asia, África, Oriente Medio y Europa. La prevalencia del estrés laboral notificada osciló entre moderada y alta. Los determinantes comunes incluyeron la gran carga de trabajo, el trabajo por turnos, la dotación de personal inadecuada, la ambigüedad de funciones, el apoyo limitado de la dirección y la violencia en el lugar de trabajo. La pandemia de COVID-19 intensificó aún más el estrés, impulsado por el riesgo de infección y la insuficiencia de equipos de protección. Entre los factores estresantes específicos del contexto se encontraban la escasez de recursos en los países de ingresos bajos y medios y la inestabilidad política en regiones como Jordania y Palestina. Las consecuencias incluyeron agotamiento, exhaustión emocional, intención de abandonar el puesto de trabajo y efectos adversos en la seguridad de los pacientes y la calidad de la atención.
Conclusión: el estrés laboral entre el personal de enfermería sigue siendo un problema mundial importante con consecuencias personales y sistémicas críticas. Se necesitan urgentemente intervenciones a varios niveles, centradas en el apoyo organizativo, la dotación de personal, la seguridad en el lugar de trabajo y el fomento de la resiliencia, especialmente en entornos con recursos limitados y afectados por conflictos.

Palabras clave: Estrés Laboral; Personal de Enfermería; Agotamiento; Seguridad de los Pacientes; Personal Sanitario.

INTRODUCTION

Occupational stress is a well-recognized phenomenon in healthcare professions and is increasingly considered a global public health challenge. Stress in the workplace is broadly defined as the harmful physical and emotional responses that occur when job demands exceed the worker's resources, capabilities, or needs.[1] Among health professionals, nurses are particularly vulnerable to occupational stress due to the complex, demanding, and emotionally charged nature of their work. Multiple studies have reported that the prevalence of occupational stress among nurses ranges widely, from 9,2 % to 75 % worldwide, underscoring the variability in healthcare systems, work environments, and cultural contexts.[2,3,4]

Nursing is consistently described as one of the most stressful healthcare professions, largely because it requires constant interaction with patients and families, exposure to suffering and death, and balancing clinical responsibilities with administrative demands.[5] Stressors in nursing can be classified into individual, organizational, and environmental categories. On the individual level, factors such as age, gender, family responsibilities, and coping strategies have been shown to influence stress levels.[6,7] Organizational factors, including heavy workload, extended working hours, understaffing, role ambiguity, and lack of managerial support, are commonly reported as major contributors.[8,9] Environmental stressors—such as inadequate resources, frequent exposure to emergencies, and occupational hazards—further exacerbate the problem.[10]

One prominent source of stress is rotating or irregular shift work. Nurses working night or rotating shifts experience disrupted circadian rhythms, poor sleep quality, and impaired recovery, all of which intensify psychological strain.[11] These disruptions have been closely linked to burnout, characterized by emotional exhaustion, depersonalization, and a reduced sense of professional accomplishment.[12] Burnout not only threatens the well-being of nurses but also compromises patient care quality, increases medical errors, and contributes to higher turnover rates.[13] Other identified risk factors include workplace violence, limited autonomy, insufficient recognition, and strained relationships with supervisors and colleagues.[14,15]

The consequences of occupational stress extend beyond the individual nurse to affect the broader healthcare system. Stressed nurses often report diminished job satisfaction, reduced motivation, and impaired decision-making, which can lead to absenteeism, presentism, and turnover.[16] At an organizational level, this results in decreased workforce stability, increased recruitment and training costs, and potential reductions in patient safety and care quality.[17] At the societal level, persistent nurse stress contributes to workforce shortages, an issue of particular concern in low- and middle-income countries (LMICs) where human resources for health are already constrained.[18]

Several systematic reviews have examined stress and burnout among nurses globally. Evidence suggests that while high-income countries often emphasize organizational solutions—such as staffing adjustments, wellness programs, and resilience training—LMICs report unique structural barriers, including political instability, resource scarcity, and weak institutional support.[19] Research in the Middle East, including Palestine, remains limited

despite the presence of chronic healthcare stressors, such as overcrowded hospitals, high patient acuity, and limited staffing.[20] For example, recent studies from Hebron and neighboring regions highlight the scarcity of data on occupational stress among Palestinian nurses, despite their critical role in healthcare delivery under challenging conditions.[21] This gap underscores the need for systematic evidence to inform interventions that are context-specific and sustainable.

Given the profound personal, organizational, and societal implications of occupational stress among nurses, it is essential to synthesize existing literature and identify consistent patterns of risk factors. A systematic review is particularly valuable because it integrates findings across diverse settings, highlights methodological strengths and weaknesses, and clarifies research gaps. The present review therefore aims to examine occupational stress and its associated risk factors among nurses, with an emphasis on identifying both universal determinants and context-specific challenges. By consolidating evidence, this work seeks to inform strategies for stress reduction, promote nurse well-being, and strengthen healthcare system resilience.

METHOD

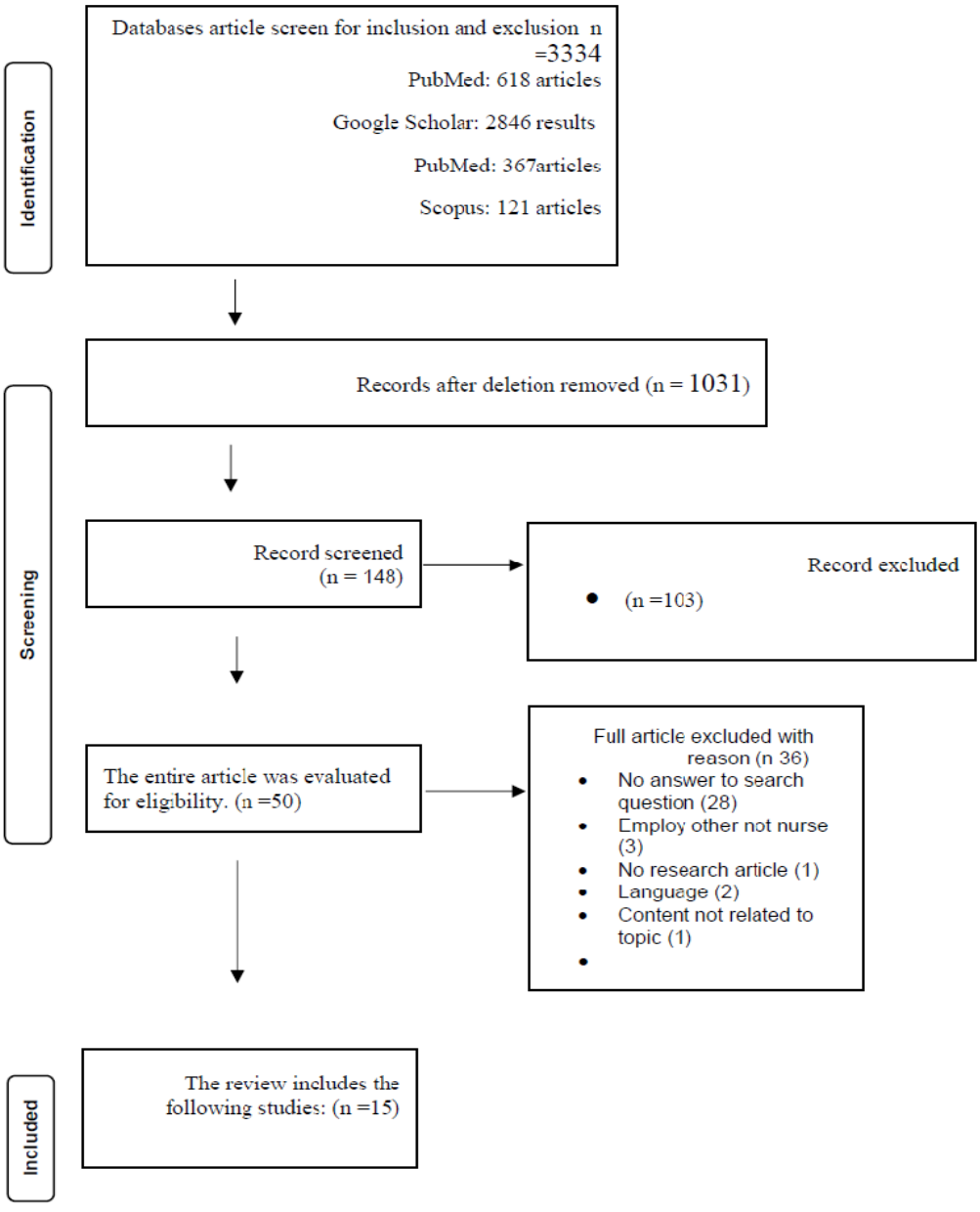

Figure 1. PRISMA 2020 flow diagram describing study selection for systematic review

Study Design

This research employed a systematic review design, guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) statement.[22]

Search Strategy

A comprehensive literature search was conducted across four major electronic databases: PubMed, CINAHL, Scopus, and PsycINFO. The search covered the period from January 2015 to March 2024, ensuring the inclusion of recent evidence reflecting contemporary nursing practice. Additional sources included Google Scholar for grey literature, reference list hand-searching of relevant studies, and citation tracking.

The search strategy combined Medical Subject Headings (MeSH) with relevant free-text terms. Boolean operators (AND, OR) were applied to refine retrieval. The following search string was adapted for each database:

- ("occupational stress" OR "job stress" OR "workplace stress" OR "psychological stress") AND
- ("nurse" OR "nurses" OR "nursing staff") AND
- ("risk factors" OR "determinants" OR "predictors" OR "associated factors").

The final retrieved records were imported into EndNote 20 for duplicate removal and screening.

Eligibility Criteria

Studies were included if they met the following criteria:

1. Population: registered nurses or nursing staff employed in hospital or healthcare settings.
2. Exposure: occupational stress or work-related stress, with explicit assessment using validated or standardized tools (e.g., Expanded Nursing Stress Scale, Nursing Stress Index, Perceived Stress Scale).
3. Outcomes: prevalence estimates, associated risk factors, or reported consequences of occupational stress.
4. Study design: quantitative (cross-sectional, cohort, case-control), qualitative, or mixed-methods studies.
5. Language: published in English.
6. Publication status: peer-reviewed journal articles.

Exclusion criteria

- Studies not focused on nurses (e.g., physicians, allied health professionals).
- Articles limited to editorials, commentaries, conference abstracts, or case reports.
- Studies with inadequate methodological description or lacking ethical approval.

Study Selection

The screening process was performed in three phases:

1. Title and abstract screening by two independent reviewers to exclude irrelevant studies.
2. Full-text review to assess eligibility based on inclusion/exclusion criteria.
3. Consensus resolution, where disagreements were discussed and resolved by a third reviewer.

A PRISMA 2020 flow diagram was developed to illustrate the study selection process, including numbers of records identified, screened, excluded, and included as in figure 1.

Data Extraction

Data were extracted using a standardized form developed by the review team. The following information was recorded:

- Author(s), year, and country of study.
- Study design and sample size.
- Characteristics of participants (age, gender, work setting, shift schedule).
- Measurement instruments used to assess stress.
- Prevalence estimates of occupational stress.
- Reported risk factors and associated variables (socio-demographic, organizational, environmental).
- Key outcomes related to health, well-being, or organizational performance.
- Ethical approval status.

Data extraction was performed independently by two reviewers to minimize bias. Discrepancies were resolved by consensus.

Quality Appraisal

The methodological quality of included studies was assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Tools, selected according to study design (cross-sectional, cohort, or qualitative).[23] Each study was evaluated against criteria such as:

- Clarity of research objectives.
- Sampling strategy and representativeness.

- Validity and reliability of stress measurement instruments.
- Control of confounding variables.
- Adequacy of statistical analysis.

Each criterion was rated as "yes," "no," "unclear," or "not applicable." Overall quality was classified as high, moderate, or low. Independent assessments were compared, and disagreements resolved by discussion.

Data Synthesis

Due to heterogeneity across studies regarding design, measurement tools, and outcomes, a narrative thematic synthesis approach was adopted. Findings were summarized in tables and categorized under major themes: prevalence, socio-demographic determinants, organizational factors, environmental stressors, and health/organizational consequences.

Where sufficient homogeneity existed, quantitative pooling was considered. However, given the variation in stress measurement tools and outcome definitions, a formal meta-analysis was not feasible. Instead, weighted summaries of prevalence ranges and thematic analysis of risk factors were reported.

Ethical Considerations

This study was based on secondary analysis of published literature. As no new data were collected from human participants, formal ethical approval was not required. However, all included studies were required to have obtained ethical clearance from their respective institutional review boards

RESULTS

Table 1. Summary of Included Studies (2020–2025)

Author & Year	Country	Sample	Key Findings	JBI Appraisal
Baye et al.[23]	Ethiopia	367 nurses	High prevalence of work stress; workload and low support were predictors.	Moderate
Zaghini et al.[24]	Italy	Multicenter hospital nurses	Stress mediated link between emotional labor and burnout.	Moderate
Galanis et al.[25]	International	221 Nurse	Burnout high during COVID-19; risk factors: workload, PPE shortage.	High
Lim et al.[26]	South Korea	Meta-correlation (obs. studies)	Job demands and low support strongly correlated with stress.	High
Bekele Werke & Weret[27]	Ethiopia	322 nurses	Moderate–high stress; long hours, night duty, poor support.	Moderate
Zhang et al.[28]	China	National cross-sectional	Stress linked to low respect and need for counseling.	Moderate
Gmayinaam et al.[29]	Ghana	212 nurses	Stressors: staffing shortages, long hours, needle-stick injuries.	Moderate
Li et al.[30]	International	23 studies (meta-analysis)	Burnout associated with lower patient safety, quality, and satisfaction.	High
Narbona-Gálvez et al.[31]	Spain	156 novice nurses	Stressors: lack of experience, role ambiguity, heavy workload.	Moderate
Zhong et al.[32]	China	403 nurses	Moderate stress; family dysfunction and fertility context important.	Moderate
Long et al.[33]	China	2 050 nurses	Workplace violence strongly increased occupational stress.	High
Alkhawaldeh et al.[34]	Jordan	316 nurses	Workload, role conflict, limited resources predicted higher stress.	Moderate
Oweidat et al.[35]	Jordan	280 nurses	Work stressors correlated with intention to leave during COVID-19.	Moderate
Dziedzic et al.[36]	Poland	248 nurses	Most reported moderate stress; social support lowered stress.	Moderate
Jaradat & Qabaja[37]	Palestine (West Bank)	195 nurses	Elevated stress from staffing shortages, workload, and shift schedules.	Moderate

A total of 15 studies published between 2020 and 2025 met the eligibility criteria and were included in this systematic review. The studies were conducted in diverse regions, including Asia, Africa, the Middle East, and Europe, and employed predominantly cross-sectional survey designs, with two systematic reviews/meta-analyses. The sample sizes varied from fewer than 200 participants to multicenter surveys with several thousand

nurses.

Overall, the prevalence of occupational stress among nurses ranged from moderate to high levels, with contributing factors consistently identified as workload, shift work (especially night or rotating schedules), low managerial support, workplace violence, and limited resources. Several studies highlighted the exacerbating effect of the COVID-19 pandemic, while others underscored protective factors such as social support and organizational interventions.

The Joanna Briggs Institute (JBI) Critical Appraisal Tools were applied to assess study quality. Most studies were rated as moderate quality, with a few systematic reviews and well-designed multicenter surveys rated as high quality.

DISCUSSION

This systematic review synthesized evidence from fifteen studies conducted between 2020 and 2025 on occupational stress and associated risk factors among nurses. The findings demonstrate that occupational stress remains a significant global issue in nursing practice, with consistent determinants across regions, while also reflecting unique contextual influences.

Prevalence and Common Determinants

Across included studies, the prevalence of occupational stress among nurses was generally moderate to high.[23,27] Core stressors consistently reported included heavy workload, shift work, insufficient staffing, role ambiguity, and lack of managerial support. These findings align with earlier literature, which has identified the multidimensional nature of occupational stress in nursing, encompassing organizational, interpersonal, and individual-level risk factors.[27,28]

A notable determinant highlighted in recent studies is shift work, particularly rotating and night schedules, which disrupt circadian rhythms and contribute to fatigue and burnout.[32,33] Evidence from earlier meta-analyses supports this link, confirming that nurses working night shifts are at increased risk of both physiological strain and psychological stress.[29,31]

Context-Specific Stressors

In addition to universal factors, context-specific stressors were identified. In Ethiopia and Ghana, limited resources and overcrowding exacerbated stress levels.[23,29] In Jordan and Palestine, political instability and health system constraints contributed to elevated stress among nurses.[34,35,36,37] These contextual findings reinforce the argument that occupational stress in nursing is shaped not only by organizational structures but also by wider sociopolitical and economic environments.[27,39]

During the COVID-19 pandemic, unique stressors such as fear of infection, inadequate personal protective equipment (PPE), and increased patient acuity were prominent.[25,35] These challenges intensified already high baseline stress levels, consistent with broader global reviews of nurse mental health during the pandemic.[28]

Consequences of Occupational Stress

The consequences of occupational stress extended to both individual nurses and healthcare organizations. Several studies reported associations between stress and burnout, emotional exhaustion, reduced job satisfaction, and turnover intention.[24,25,30,35] Importantly, Li et al.[30] demonstrated a strong link between nurse burnout and patient safety and care quality, underscoring the far-reaching implications of stress beyond the workforce. These findings echo international evidence that nurse stress is a critical determinant of healthcare quality outcomes.[33]

Social support emerged as a protective factor. Dziedzic et al.[36] found that nurses with higher levels of social support reported lower stress levels, a finding consistent with resilience-based frameworks for occupational well-being.[40] This highlights the potential of interventions aimed at strengthening peer support networks and promoting positive workplace climates.

Methodological Considerations

The methodological quality of included studies was predominantly moderate, as assessed by the JBI Critical Appraisal Tools. Cross-sectional survey designs were most common, limiting causal inference. However, the inclusion of systematic reviews and large multicenter surveys enhanced the robustness of the evidence base.[25,30,33] Future research should prioritize longitudinal and interventional designs to establish causal pathways and evaluate the effectiveness of stress-reduction strategies.

Implications for Practice and Policy

The findings underscore the urgent need for multilevel interventions targeting occupational stress in nursing. At the organizational level, interventions may include adequate staffing, improved scheduling practices,

managerial support, and safe workplace policies to prevent violence.[33,34,35] At the individual level, resilience training, stress management programs, and counseling services may enhance coping capacity.[36,37] Policymakers, particularly in LMICs such as Palestine and Jordan, must also address systemic health workforce shortages and resource limitations to alleviate structural stressors.[38,39,40]

Research Gaps

Despite the growing body of evidence, several gaps remain. Few studies employed qualitative methodologies, which are crucial for understanding lived experiences of stress. Moreover, limited research has explored gender-specific stressors or the impact of family responsibilities, despite evidence suggesting these are influential in shaping occupational stress.[32,38] Finally, research in conflict-affected or resource-constrained contexts remains scarce, highlighting the need for context-sensitive stress interventions.

CONCLUSION

Occupational stress among nurses is a widespread and persistent challenge, driven by universal factors such as workload, shift work, and inadequate support, while also being shaped by context-specific conditions like resource scarcity and political instability. This stress not only threatens nurses' health and job satisfaction but also undermines patient safety and healthcare quality. Addressing it requires multilevel interventions—organizational reforms, individual resilience-building, and systemic policy measures—particularly urgent in low-resource and conflict-affected settings.

REFERENCES

1. Nakase K, Ouzounian C. Factors influencing stress and job satisfaction of nurses working in psychiatric units. Health Sci. 2008;2(4):183-95.

2. Guppy T, Tim M. Occupational stress among nurses: prevalence and predictors. Int J Nurs Stud. 2017;54:25-33.

3. Kassa DH, Aengus AD, Meetu BT. Assessment of occupational stress and associated factors among nurses in East Gujjar zone public hospitals. Clin Med Res. 2019;6(2):43-8.

4. Mohite N, Shinde M, Galvani A. Occupational stress among nurses working at selected tertiary care hospitals. Int J Sci Res. 2018;3(6):26-7.

5. Rogers B. Occupational and Environmental Health Nursing: Concepts and Practice. Philadelphia: Elsevier; 2003.

6. Okita S, Daitoku S, Abe M, et al. Potential predictors of susceptibility to occupational stress in Japanese novice nurses: a pilot study. Environ Health Prev Med. 2017;22(1):20.

7. Zhou L, Quansah PE, Owusu-Marfo J. Nursing stress factors and turnover intention among newly recruited nurses in China. Nurs Open. 2022;9(6):2697-709.

8. Werke EB, Were ZS. Occupational stress and associated factors among nurses working at public hospitals of Addis Ababa, Ethiopia. Front Public Health. 2023;11:1147086.

9. Bardhan R, Heaton K, Davis M, et al. Psychosocial job stress and health risk in emergency department nurses: a cross-sectional study. Int J Environ Res Public Health. 2019;16(18):3243.

10. Mesa MDLA, Barbera MDC, Montesinos MJL, et al. Stress in nursing graduates and healthcare assistants in surgical areas. Infirmarian Global. 2021;20(1):204-13.

11. Lin PC, Chen CH, Pan SM, et al. Association between rotating shift work and occupational stress in nurses. J Occup Health. 2023;57(4):307-15.

12. Maslach C, Leiter MP. Understanding burnout: new models. World Psychiatry. 2016;15(2):103-11.

13. Dall'Ora C, Ball J, Reinius M, Griffiths P. Burnout in nursing: a theoretical review. Hum Resour Health. 2020;18(1):41.

14. Baye Y, Demeke T, Birhan N, Samahan A. Nurses' work-related stress and associated factors in Ethiopian

hospitals. PLoS One. 2020;15(3):e023034.

15. Sardinia H, Kumiki F, Bloch B. Comparison of job stress among emergency department nurses with other specialties. QJ Nurs Manag. 2018;6(3):48-56.

16. Babapour R, Ghassan-Mozaffari N, Kazemi AF. Nurses' job stress and its impact on quality of life and caring behaviors: a cross-sectional study. BMC Nurs. 2022;21(1):75.

17. Baldwin A, Griffiths P, Dall'Ora C. Nurse stress, burnout, and implications for patient care. J Adv Nurs. 2025;81(3):689-98.

18. Kruczek A, Basińska MA, Janicka M. Coping flexibility in nurses: moderating role of age and seniority. Int J Occup Med Environ Health. 2020;33(4):507-21.

19. Darity AF, Tackie V, Akosua DR. Occupational stress and its effects on nurses in Ghana. SAGE Open Nurs. 2023;9:1-11.

20. Al-Hawara KM. Exploring the relationship between occupational stress and organizational commitment among nurses in Jordan. Dirasat: Admin Sci. 2013;40:127-43.

21. Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ. 2021;372:n71.

22. Moola S, Munn Z, Tufanaru C, et al. Chapter 7: Systematic reviews of etiology and risk. In: Aromataris E, Munn Z, editors. JBI Manual for Evidence Synthesis. Adelaide: JBI; 2020.

23. Baye Y, Demeke T, Birhan T, Getachew A, Belay W. Nurses' work-related stress and associated factors in Harar, Eastern Ethiopia: A cross-sectional study. PLoS One. 2020;15(8):e0236782.

24. Zaghini F, Fiorini J, Piredda M, Fida R, Sili A. The role of occupational stress in the association between emotional labour and burnout among nurses: A multiple mediation model. Professioni Infermieristiche. 2020;73(2):111–20.

25. Lim JY, Kim GM, Kim EJ. Factors associated with job stress among hospital nurses: A meta-correlation analysis. Int J Environ Res Public Health. 2022;19(10):5792. Available from: https://doi.org/10.3390/ijerph19105792

26. Galanis P, Vraka I, Fragkou D, Bilali A, Kaitelidou D. Nurses' burnout and associated risk factors during the COVID-19 pandemic: A systematic review and meta-analysis. J Adv Nurs. 2021;77(8):3286–302.

27. Bekele Werke E, Shewangizaw Weret Z. Occupational stress and associated factors among nurses working at public hospitals of Addis Ababa, Ethiopia, 2022: A hospital-based cross-sectional study. Front Public Health. 2023;11:1147086.

28. Zhang W, Ma X, Yu S, et al. Occupational stress, respect, and the need for psychological counselling in Chinese nurses: A nationwide cross-sectional study. Public Health. 2023;225:72–8. Available from: https://doi.org/10.1016/j.puhe.2023.09.003

29. Gmayinaam VU, Tampouri I, Agyapong JK. Work-related stress: Prevalence, causes and coping strategies among nurses in secondary and tertiary healthcare facilities in Ghana. BMC Public Health. 2024;24:1767.

30. Zhong Y, Jin D, Dong X. Levels and related factors of occupational stress among nurses in a low-fertility context. Front Psychol. 2025;16:1471640.

31. Long L, Chen Z, Yuan J, Zeng C. Association between workplace violence and occupational stress among emergency department nurses: A cross-sectional study. Front Public Health. 2025;13:1603651.

32. Alkhawaldeh A, Ta'an W, Alzghoul M. Sources and predictors of occupational stress among public health nurses in Jordan. Public Health Nursing. 2025;Advance online publication.

33. Oweidat IA, Rababa M, Khrais HI, Thawabieh A. Work stressors and intention to leave among Jordanian nurses in isolation units: A cross-sectional correlational study. Heliyon. 2025;11(4):e31703.

34. Li Y, Bai J, Han P, Liu T. Association of nurse burnout with patient safety, quality of care, and patient satisfaction: A systematic review and meta-analysis. JAMA Netw Open. 2024;7(5):e2412330.

35. Narbona-Gálvez S, Romero-Cuesta J, Ruiz-Cárdenas JD, Olmedilla A. Novice nurse stress in unfamiliar scenarios: Clinical implications. Front Public Health. 2024;12:1365597.

36. Dziedzic B, Łuczyk K, Małyszczak M, Książek T. Occupational stress and social support among nurses. Front Psychol. 2025;16:1265776.

37. Jaradat Y, Qtait M. Occupational Stress and Associated Risk Factors Among Nurses in Hebron Hospitals: A Cross-Sectional Study from the West Bank, Palestine. SAGE Open Nurs. 2025;11:23779608251374155.

38. Qtait M, Alia MF, Jaradat Y. The Impact of Rotating Shift Work on Nurse Burnout: A Systematic Review of Contributing Factors and Organizational Strategies. SAGE Open Nursing. 2025;11.

39. Alqaissi N, Qtait M, Jaradat Y, et al. Psychological Challenges of Nurses Working at Hospitals in South West Bank, During War on Gaza Strip. Disaster Med Public Health Prep. 2025;19:e209.

40. Qtait M. Systematic Review of Time Management Practices Among Nurse Managers. Afr J Nurs Midwifery. 2023;25(2). Available from: https://doi.org/10.25159/2520-5293/13507

FINANCING

None.

CONFLICT OF INTEREST

None.

AUTHOR CONTRIBUTION

Conceptualization: Yousef Jaradat.

Research: Thabet Manasreh.

Methodology: Salsabeel Ganazreh.

Drafting - original draft: Obaida Mahareq, Yousef Jaradat, Salsabeel Ganazreh, Thabet Manasreh, Malak Shaban.

Writing - proofreading and editing: Obaida Mahareq, Yousef Jaradat, Salsabeel Ganazreh, Thabet Manasreh, Malak Shaban.