WORK STRESS, WELL-BEING, AND CARE QUALITY AMONG CLINICAL NURSES: A HUMAN RESOURCE PERSPECTIVE

Deni Setiawati[1]*, Lusianah[2], Aria Wahyuni[3]

[1] Faculty of Defense Management, Republic of Indonesia Defense University, Jakarta, Indonesia

[2]Faculty of Health Science, Institut Kesehatan dan Teknologi Pondok Karya Pembangunan DKI Jakarta

[3]Faculty of Health, Universitas Muhammadiyah Sumatera Barat, Bukittinggi, Indonesia

**Corresponding author: deni.setiawati@idu.ac.id*

Abstract

Occupational stress among clinical nurses remains a persistent challenge in health systems worldwide, with important implications for psychological well-being, workforce sustainability, and care quality. This review aimed to synthesise evidence on the interrelationships between work stress, nurse well-being, and care quality through a human resource management (HRM) and organisational governance lens. A structured, purposive literature review with reflexive thematic synthesis was conducted. Targeted searches of Scopus, PubMed, and CINAHL were supplemented by backward citation tracking. Core clinical-nursing evidence was prioritised, while selected methodological and organisational sources were used to support conceptual framing. Where applicable, methodological quality was appraised using design-appropriate Joanna Briggs Institute (JBI) critical appraisal tools. Four interrelated themes were identified: (1) sources of work stress, particularly workload intensity, staffing shortages, long or irregular shifts, and emotional labour; (2) well-being and psychological resilience, with burnout and moral distress as prominent manifestations; (3) effects on care quality, including clinical errors, reduced empathy, impaired attentiveness, and lower patient satisfaction; and (4) HRM and organisational factors, including leadership, performance appraisal, scheduling, support systems, and shared governance. Across the evidence, nurse well-being emerged not only as an individual concern but also as an organisational capability with direct implications for patient safety and workforce retention. Sustainable improvement therefore requires integrated HR strategies, supportive leadership, workload-sensitive staffing, recovery-supportive scheduling, and governance systems that monitor staff well-being alongside patient-safety and quality indicators, particularly in resource-constrained settings such as Indonesia.

Keywords: Care Quality; Clinical Nursing; Human Resource Management; Nurse Well-Being; Work Stress

1. INTRODUCTION

Work-related stress among clinical nurses represents a major challenge to healthcare workforce sustainability, organisational performance, and patient safety. Nurses routinely experience demanding workloads, inadequate staffing, emotional exhaustion, complex clinical responsibilities, and sustained exposure to patient suffering. These occupational pressures may adversely affect psychological well-being, professional engagement, and the delivery of safe, high-quality nursing care. The World Health Organization (WHO) has emphasised the importance of improving nursing working conditions, mental health support, leadership, and workforce retention as essential components of sustainable healthcare systems [1].

Work-related stress is a multidimensional occupational phenomenon involving psychological, emotional, physical, and interpersonal responses to workplace demands. When these demands exceed available resources and coping capacities, prolonged stress may contribute to emotional exhaustion,

reduced professional effectiveness, burnout, and diminished work engagement. A systematic review by Zabin et al. (2023) identified associations between occupational stress, patient safety culture, and patient safety outcomes among nurses [2]. These findings suggest that nursing stress should be considered not only an individual health concern but also an organisational issue with implications for healthcare delivery.

The relationship between occupational stress and care quality is increasingly supported by empirical evidence. Li et al. (2024), in a systematic review and meta-analysis involving 85 studies and 288,581 nurses, reported that nurse burnout was associated with poorer patient safety outcomes, increased adverse events, lower patient satisfaction, and reduced nurse-assessed quality of care [3]. These findings highlight the potential consequences of prolonged occupational strain for healthcare organisations and reinforce the importance of addressing workforce well-being within institutional quality improvement strategies.

Nurse well-being encompasses psychological health, emotional stability, physical functioning, job satisfaction, professional fulfilment, and positive workplace relationships. It is influenced by both individual characteristics and organisational conditions. Adequate staffing, manageable workloads, supportive leadership, professional autonomy, and access to psychological support represent important organisational considerations. Consequently, interventions focusing exclusively on individual stress management may be insufficient when structural sources of occupational stress remain unresolved.

Human resource management (HRM) provides an organisational perspective for understanding and addressing these challenges. Within healthcare institutions, HRM involves workforce planning, recruitment, staffing allocation, workload distribution, performance management, professional development, employee support, and retention strategies. These functions may influence nurses' occupational experiences and their capacity to provide safe and effective care. A systematic review of longitudinal studies by Dall'Ora et al. (2022) identified evidence supporting the importance of adequate registered nurse staffing for patient outcomes [4]. Furthermore, Lee et al. (2023) reported that effective nurse manager leadership was generally associated with favourable patient safety and care quality outcomes [5].

From an organisational governance perspective, work-related stress, nurse well-being, and care quality can be examined through interconnected pathways. Staffing inadequacy, excessive workload, limited managerial support, and insufficient professional participation may increase occupational demands and contribute to psychological strain. Such conditions may subsequently influence professional engagement, communication, clinical performance, and patient safety. Conversely, supportive leadership, equitable workload allocation, organisational justice, and opportunities for professional development may strengthen nurses' working environments and support better care processes. However, these proposed relationships require careful interpretation because much of the available evidence is observational and does not establish causal pathways.

These issues are particularly relevant to healthcare systems facing workforce shortages, resource constraints, and growing service demands, including those in Southeast Asia and Indonesia. Nevertheless, the magnitude and organisational determinants of occupational stress may vary across institutions and healthcare settings. Understanding how HRM practices and governance arrangements interact with nurse well-being and care quality is therefore important for developing context-sensitive organisational strategies.

Although previous reviews have examined relationships between nurse burnout and patient safety, staffing levels and patient outcomes, or leadership and care quality, the available evidence is commonly synthesised within separate conceptual domains [2–5]. A more integrated HRM-oriented synthesis is needed to clarify how organisational workforce practices relate to nurses' occupational stress, well-being, and quality of clinical care. Such integration may help identify modifiable organisational conditions, clarify evidence gaps, and inform nursing management and hospital governance priorities.

Accordingly, this review aimed to synthesise current evidence concerning the relationships among work-related stress, nurse well-being, and care quality in clinical nursing settings, with particular attention to HRM practices and organisational governance mechanisms. Specifically, the review sought to: (1) identify organisational factors associated with work-related stress and nurse well-being; (2) examine reported associations between nurse well-being, patient safety, and care quality; and (3) explore how staffing, leadership, workload management, and workplace support may contribute to

these relationships. The findings are intended to inform evidence-based workforce management, organisational decision-making, and future research on sustainable nursing care delivery.

2. METHODOLOGY

Study Design and Eligibility Criteria

Study Design and Scope

This study employed a structured, purposive literature review with reflexive thematic synthesis. PRISMA 2020 principles were used as a transparency reference for describing eligibility and source identification, but the review was not designed as a full systematic review and therefore does not claim exhaustive database coverage [6].

Core evidence comprised peer-reviewed empirical studies and evidence syntheses addressing work stress, burnout, nurse well-being, care quality, patient safety, retention, or organisational factors in clinical nursing settings. Selected methodological, HRM, and organisational sources were also retained when they contributed directly to conceptual framing or interpretation. Sources from adjacent populations were used only for contextual or conceptual support and were not treated as direct estimates of clinical-nurse outcomes.

Search Strategy and Study Selection

Sources were identified through targeted searches of Scopus, PubMed, and CINAHL using combinations of keywords related to work stress, burnout, nurse well-being, care quality, patient safety, leadership, staffing, empowerment, retention, and human resource management. Backward citation tracking was performed to identify additional relevant publications.

A total of 587 records were identified, comprising 545 records from electronic databases and 42 additional records identified through backward citation tracking. Following the removal of 212 duplicate records, 375 records remained for title and abstract screening.

Of these, 241 records were excluded based on relevance to the review objectives, population, and conceptual scope. Subsequently, 134 reports were sought for full-text retrieval, of which seven could not be obtained. The remaining 127 reports were assessed for eligibility, and 115 were excluded because they did not meet the inclusion criteria, lacked sufficient relevance to clinical nursing, demonstrated methodological limitations, or provided limited conceptual contributions.

Finally, 12 core evidence sources were included in the reflexive thematic synthesis. The identification and selection process is illustrated in Figure 1 using a PRISMA 2020-informed framework. The characteristics and principal contributions of the included sources are summarised in Table 1. Additional methodological and contextual references were used to support the analytical framework and interpretation of findings.

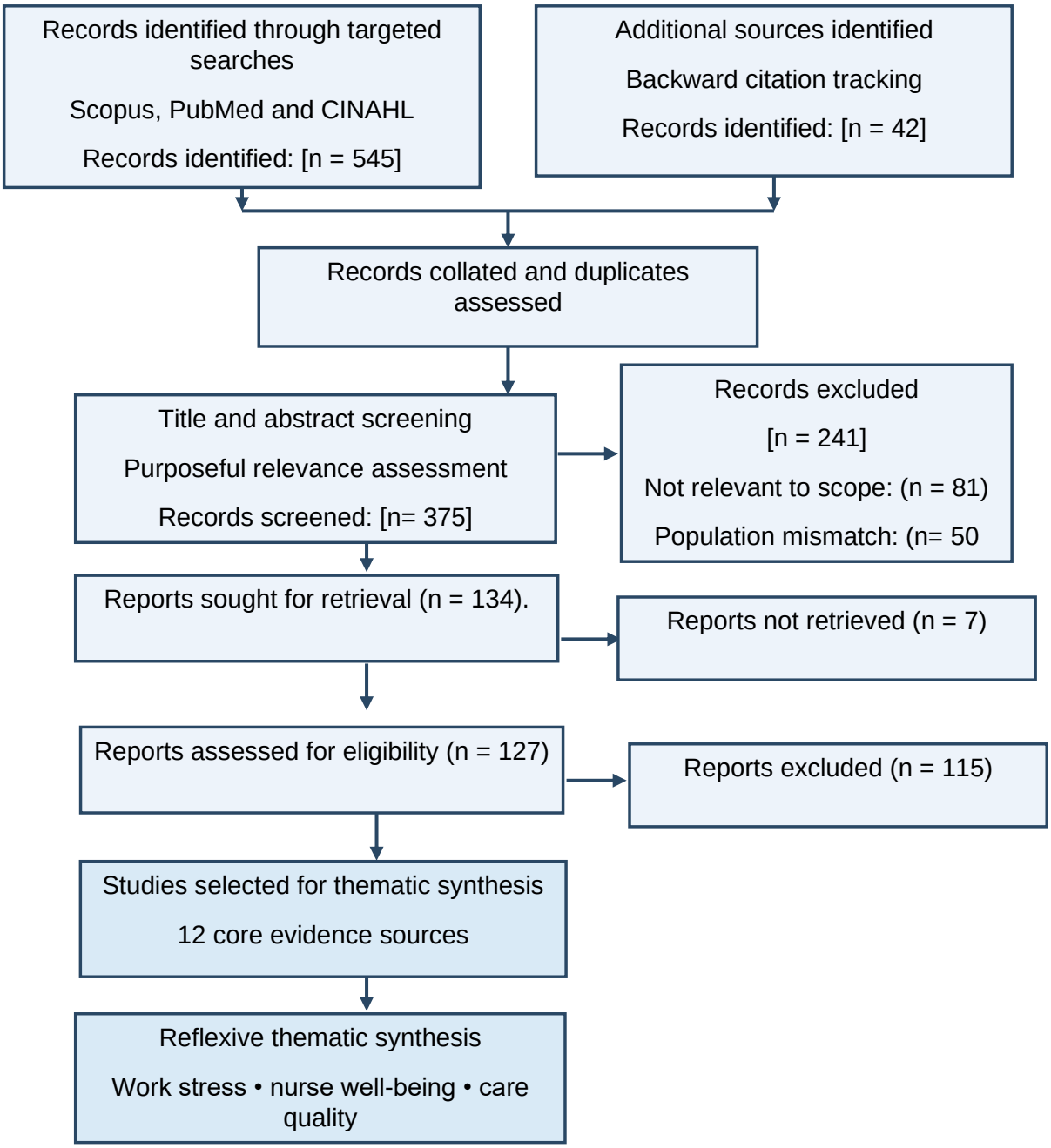


Figure 1 Prisma Flowchart

Quality Appraisal and Data Synthesis

Where applicable, empirical studies and evidence syntheses were critically appraised using design-appropriate Joanna Briggs Institute (JBI) tools. Methodological and conceptual sources that did not fit a JBI empirical-study checklist were used only for contextual framing and were not treated as equivalent to clinical-effect evidence.

Data were analysed using reflexive thematic analysis following Braun and Clarke [7]. Initial coding focused on three domains - work stress, nurse well-being, and care quality - while HRM and governance factors were examined as contextual mechanisms that could amplify or buffer the relationships among those domains. Codes were compared across sources and grouped into higher-order themes. Trustworthiness was supported through cross-source comparison, explicit documentation of the

analytical structure, and separation of core clinical evidence from contextual literature. Because the review used publicly available published sources, ethical approval was not required.

Analytical Framework

The synthesis was organised around a multi-level pathway in which structural work demands (for example staffing shortages, workload, shift patterns, and emotional labour) influence nurse well-being; changes in well-being then affect attention, communication, empathy, decision-making, and retention, which in turn shape care quality and patient safety. HRM and organisational governance practices were treated as modifying factors because leadership, appraisal, scheduling, support, and shared decision-making can either intensify or mitigate these pathways.

3. RESULTS

Characteristics of Core Evidence Sources

The core sources represented multiple study designs and geographic contexts, including multinational evidence syntheses and empirical studies from Africa, Europe, Southeast Asia, and Indonesia. Table 1 presents the twelve sources that most directly informed the thematic findings.

***Table 1**. Core evidence sources informing the thematic synthesis (n = 12).*

Author(s), Year	Design / Source	Country	Key Finding / Contribution
Scott-Marshall, 2024 [8]	Rapid evidence review	Multinational	Staffing shortages and excessive working hours contribute to occupational fatigue and health and safety risks among nurses, highlighting the need for safer work-hour policies and workforce management.
Ditlopo et al., 2024 [9]	Structural equation model	South Africa	Practice environment, workload, and professional support predict job outcomes and standards of care.
Raun et al., 2025 [10]	Mixed-methods	Denmark	Traumatic exposure and moral distress contribute to psychological burden among emergency nurses.
Değirmenci Öz et al., 2023 [11]	Qualitative study	Türkiye	Emotional labour is a substantial and often invisible source of stress; used here as contextual evidence on emotional labour.
Li et al., 2024 [3]	Systematic review & meta-analysis	Multinational	Nurse burnout is associated with adverse events, medication errors, lower patient satisfaction, and poorer care quality.

Bae, 2024 [12]	Systematic review	Multinational literature	Nurse staffing levels and work schedules are important organisational factors associated with nurse turnover, highlighting the relevance of staffing management and scheduling policies to workforce retention.
et al., 2024 [13]	Systematic review & meta-analysis	Multinational	Structural and psychological empowerment are related to lower burnout.
Juanamasta et al., 2024 [14]	Multicentre cross-sectional	Indonesia	Among 900 nurses, more than half reported stress, 7.3% experienced exhaustion symptoms, and approximately 1% had a high likelihood of complete burnout.
Figueiredo et al., 2025 [15]	Umbrella review	Multinational	Supportive nursing practice environments, adequate staffing, leadership, and professional participation contribute to nurse retention and reduced turnover intention.
Bond et al., 2025 [16]	Integrative review	Europe/USA	Organisational factors contribute to nurses' workplace well-being.
Azhari et al., 2026 [17]	Integrative review	Indonesia/Malaysia	Workplace spirituality may buffer emotional and ethical stressors.
Jiménez-García & Flor-Martínez, 2026 [18]	Systematic review & meta-analysis	Multinational	Organisational and individual interventions can reduce or prevent nurse burnout, with implications for workforce policy.

Thematic Findings

1. Sources of Work Stress in Clinical Nursing

Workload intensity—driven by staffing deficits, rising patient acuity, and task saturation—emerged as a prominent occupational stressor, compounded by extended working hours, irregular scheduling, and cumulative fatigue [4,8,9] These pressures may disrupt sleep, recovery, and personal routines, thereby affecting physical endurance and psychological well-being, particularly in demanding clinical environments such as emergency and critical care settings [8,10].

Emotional labour also emerged as an important but less visible component of work-related stress. Nurses are frequently expected to regulate and express emotions appropriately during challenging patient and family interactions, including end-of-life care and other emotionally demanding situations. Qualitative evidence indicates that emotional labour is an important dimension of nurses' professional experiences and may contribute to occupational strain when organisational support is insufficient [11]. Inadequate staffing may further intensify these demands by increasing clinical workloads and limiting opportunities for peer support and recovery [4,9].

2. Well-being and Psychological Resilience

Burnout, commonly characterised by emotional exhaustion, depersonalisation, and reduced personal accomplishment, emerged as an important manifestation of compromised occupational well-being [3,14]. Emergency nursing environments may involve additional psychological demands related to exposure to emotionally challenging clinical situations, unpredictable workloads, and high-pressure decision-making [10].

Organisational support, professional empowerment, and workplace conditions appear to play important roles in nurses' psychological well-being [13,16] Individual coping approaches, including mindfulness, peer support, and spiritual engagement, may provide additional resources for managing occupational demands. However, such approaches should not be considered substitutes for organisational improvements in staffing, workload allocation, and managerial support [16,17].

Supportive leadership, psychologically safe communication, and access to appropriate psychological support may contribute to more favourable working environments. The sustainability of these approaches is likely to depend on their integration with wider organisational strategies addressing structural workplace demands [13,16].

3. Impact on Care Quality

Evidence from a systematic review and meta-analysis indicates that nurse burnout is associated with poorer patient-safety outcomes, increased adverse events, lower patient satisfaction, and reduced nurse-assessed quality of care [3]. Occupational stress and fatigue may also affect attentiveness, concentration, communication, and clinical decision-making, although the strength and direction of these relationships vary across study designs and clinical contexts.

Emotional exhaustion and occupational strain may influence nurses' capacity to maintain therapeutic communication, professional engagement, and responsive patient care [3,11]. Nevertheless, these potential mechanisms should be interpreted cautiously because the reviewed evidence does not consistently establish direct causal relationships.

Evidence concerning nurse staffing and nursing practice environments further indicates that organisational working conditions are relevant to patient outcomes and standards of care [4,9]. These findings suggest that quality of nursing care is influenced not only by professional competence but also by workforce adequacy, organisational support, and the sustainability of nurses' working environments.

4. Human Resource and Organisational Factors

Leadership, staffing management, scheduling, professional empowerment, support systems, and workforce retention emerged as important organisational considerations. Evidence from systematic reviews suggests that nurse manager leadership is associated with patient safety and quality of care, while supportive practice environments may contribute to favourable professional outcomes [3,9,15].

Structural and psychological empowerment are associated with reduced burnout, highlighting the potential importance of professional autonomy, participation in decision-making, and organisational support [13]. In addition, staffing levels and work schedules are relevant to nurse turnover, indicating that workforce planning and scheduling should be considered integral components of HRM strategies [12].

Developmental and context-sensitive performance appraisal may support recognition, professional growth, and perceptions of organisational fairness. However, evidence directly establishing the effects of particular appraisal models on nurse well-being and care quality remains limited within the core sources included in this review.

Workforce management is particularly important during periods of increased healthcare demand. Poortaghi et al. (2021) identified recruitment, flexible workforce allocation and scheduling, and staff retention support as important nursing workforce management strategies during the COVID-19 pandemic [19]. These findings provide contextual evidence that effective HRM requires not only appropriate staffing numbers but also the organisational flexibility to redistribute personnel, adjust schedules, and support nurses during demanding clinical circumstances. Together, these findings position HRM practices as relevant components of organisational and clinical governance rather than solely administrative functions.

Integrative Summary of Results

The four themes suggest an interconnected relationship among organisational working conditions, occupational stress, nurse well-being, and care quality. Staffing shortages, excessive workloads, fatigue, and emotional demands are associated with occupational strain, while compromised well-being is associated with less favourable patient-safety and care-quality outcomes [3,4,9].

Leadership, professional empowerment, staffing management, scheduling, and organisational support may influence these relationships by shaping workload demands, professional autonomy, opportunities for recovery, and nurses' working experiences [3,12,13,16].

These findings support an integrated HRM perspective in which individual well-being initiatives are complemented by organisational approaches to workforce planning, supportive leadership, and clinical governance. However, the proposed relationships represent a thematic interpretation of the available evidence and should not be understood as a fully established causal model.

***Table 2**. HRM and organisational strategies derived from the thematic synthesis.*

Strategy	Expected Mechanism	Potential Indicators	Evidence
Acuity-based staffing and workload review	Reduce excessive workload, improve staffing adequacy, and support recovery opportunities	Patient acuity; nurse-to-patient ratio; overtime; missed breaks; workload indicators	[4,8,9]
Participatory and supportive leadership	Improve managerial support, professional engagement, recognition, and autonomy	Staff engagement; perceived managerial support; turnover intention	[3,9,15]
Developmental performance appraisal	Promote fairness, professional recognition, developmental feedback, and alignment between performance expectations and clinical realities	Appraisal satisfaction; perceived organisational justice; staff engagement	[16]
Flexible and recovery-supportive scheduling	Reduce cumulative fatigue and support work-life balance and workforce retention	Overtime; shift rotation; sick leave; fatigue and burnout indicators	[8,12,19]
Structured debriefing and access to psychological support	Provide organisational support for managing traumatic exposure, moral distress, and psychological burden	Utilisation of psychological support services; distress and burnout scores; absenteeism	[10,16,18]
Shared governance and clinical councils	Promote professional empowerment, organisational participation, and staff involvement in decision-making	Empowerment scores; participation in clinical councils; retention and turnover intention	[13,15]
Well-being indicators in	Integrate workforce well-being monitoring into patient safety and quality governance	Burnout and well-being scores; patient-safety incidents; patient	[3,16]

quality dashboards		satisfaction; nursing-sensitive quality indicators	

4. DISCUSSION

Work Stress as a Structural Organisational Challenge

The prominence of workload intensity, staffing shortages, extended working hours, and emotional labour supports the interpretation of occupational stress as a structural workplace challenge rather than solely a matter of individual vulnerability [4,8,9,11]. Inadequate staffing and excessive workloads may increase clinical demands while reducing opportunities for rest, peer support, reflection, and professional development. These findings suggest that sustainable stress reduction requires workforce planning, equitable workload distribution, and operational redesign alongside individual coping interventions.

From an HRM perspective, organisational policies concerning staffing adequacy, shift duration, workload allocation, and access to professional support are particularly relevant. Although individual stress-management strategies may provide benefits, they cannot independently resolve persistent structural workplace pressures.

Nurse Well-being as an Organisational Capability

Nurse well-being is influenced by leadership engagement, organisational support, professional recognition, empowerment, and the broader nursing practice environment [13,16]. These findings support the interpretation of nurse well-being as an organisational capability that can be strengthened through appropriate management and governance practices.

Hospitals influence nurses' opportunities to recover from occupational demands, access psychological support, participate in organisational decisions, and maintain professional engagement. Structural and psychological empowerment have been associated with lower burnout, indicating the potential importance of professional autonomy, shared decision-making, and supportive management [13].

Although individual resilience and coping strategies remain useful, they should complement rather than replace organisational improvements in staffing, workload management, managerial support, and occupational well-being initiatives.

Implications for Care Quality and Human Resource Governance

The relationship between nurse well-being and care quality has important implications for healthcare management and clinical governance. A systematic review and meta-analysis reported that nurse burnout was associated with poorer patient-safety outcomes, lower patient satisfaction, and reduced nurse-assessed quality of care [3]. Evidence concerning nurse staffing and nursing practice environments further indicates that organisational working conditions are associated with patient outcomes and standards of care [4,9].

These findings suggest that workforce well-being should be incorporated into clinical governance and quality-improvement systems rather than addressed exclusively through individual employee-wellness programmes.

From an HRM perspective, staffing allocation, scheduling, leadership development, performance appraisal, professional recognition, leave policies, and shared governance represent interconnected organisational strategies. For example, resilience training may offer limited long-term benefits if chronic understaffing, excessive workloads, and unsupportive management practices remain unaddressed.

A more integrated strategy involves aligning workforce policies with patient acuity, adequate recovery opportunities, professional autonomy, and institutional quality objectives. Nevertheless, the proposed relationships should be interpreted cautiously because much of the underlying evidence is observational and does not establish direct causality.

Regional Considerations in Asian Healthcare Systems

The findings are particularly relevant to resource-constrained healthcare systems in Southeast Asia, including Indonesia. A multicentre study among Indonesian nurses identified occupational stress and burnout-related concerns, highlighting the importance of examining organisational and workforce factors within local healthcare settings [14].

Organisational interventions should therefore consider staffing availability, institutional resources, workload distribution, workplace hierarchy, and managerial practices. Context-sensitive approaches may be particularly important in healthcare facilities where resource limitations restrict the implementation of workforce improvement strategies.

Workplace spirituality and collective social support may also provide contextual resources for promoting psychological well-being [17]. However, these approaches should complement rather than substitute for adequate staffing, equitable management, supportive leadership, and safe working conditions.

Strengths and Limitations

This review integrates quantitative, qualitative, and review-level evidence within an HRM and organisational governance framework. It offers an interdisciplinary interpretation of the relationships among occupational stress, nurse well-being, and care quality while distinguishing direct clinical-nursing evidence from contextual and conceptual sources.

Several limitations should be acknowledged. First, the structured purposive literature selection process may have omitted relevant studies. Second, heterogeneity in research designs, clinical settings, and geographic contexts limits direct comparison of findings. Third, the predominance of observational evidence restricts causal interpretation. Finally, the use of selected contextual studies limits the direct generalisability of some findings to clinical nursing populations.

The synthesis should therefore be interpreted as a structured thematic review rather than an exhaustive systematic review.

Future systematic reviews should adopt registered protocols, comprehensive and reproducible search strategies, independent screening, standardised quality appraisal, and complete PRISMA reporting.

Practical and Policy Implications

For hospital managers, addressing chronic workload pressure requires staffing policies that consider patient acuity, clinical complexity, nurse-to-patient ratios, overtime, missed breaks, and workforce retention. Scheduling policies should provide adequate recovery opportunities and reduce preventable occupational fatigue.

For nursing leaders, staff well-being should become part of routine quality governance. Indicators such as burnout, psychological safety, professional engagement, absenteeism, and turnover intention may be monitored alongside patient-safety incidents, patient satisfaction, and nursing-sensitive quality outcomes. Structured psychological support, professional supervision, and debriefing opportunities should be considered for nurses exposed to traumatic events and sustained emotional demands.

For HRM units, performance appraisal should emphasise professional development, fairness, recognition, teamwork, and contributions to care quality rather than relying solely on productivity. Shared governance and participatory leadership may strengthen nurses' involvement in organisational decisions and improve the relevance of workforce policies to clinical practice.

For policymakers and accreditation bodies, workforce well-being should be considered within broader standards for patient safety, staffing governance, leadership development, and healthcare quality improvement, particularly in health systems facing persistent workforce and resource constraints.

5. CONCLUSIONS

Occupational stress among clinical nurses is closely linked to workload pressure, staffing shortages, demanding work schedules, emotional labour, and exposure to high-stakes clinical situations. Compromised well-being can affect communication, empathy, attentiveness, decision-making, retention, and patient-safety outcomes. Leadership, organisational support, performance management, scheduling, and shared governance shape the extent to which these pressures translate into burnout and care-quality problems. The central implication is that nurse well-being should be treated as a governed organisational capability rather than solely as an individual responsibility. Sustainable improvement requires coordinated system-level interventions that align workforce planning, supportive leadership, fair HR practices, staff recovery, and quality governance.

6. RECOMMENDATIONS FOR FUTURE RESEARCH

Future studies should conduct a full systematic review with a registered protocol, comprehensive and reproducible search strategies, duplicate study selection, and complete PRISMA reporting to establish more precise estimates of the relationships among work stress, nurse well-being, and care quality.

Longitudinal and intervention studies in Indonesia and other Southeast Asian settings are needed to clarify causal pathways between HR governance practices and clinical outcomes. Priority areas include acuity-based staffing, scheduling redesign, participatory leadership, shared governance, appraisal reform, structured debriefing, and organisational well-being dashboards.

Future research should also test multi-level models in which nurse well-being functions as a mediator between structural work demands and patient outcomes, while leadership, empowerment, and organisational support operate as moderators. Such designs would help move the field from descriptive burnout research toward testable workforce-governance interventions.

7. IMPLICATIONS FOR NURSING PRACTICE AND EDUCATION

For nurse managers and hospital administrators, reducing work stress requires coordinated redesign of staffing, scheduling, support, appraisal, and staff-participation systems rather than reliance on resilience training alone. For nursing education, curricula should address emotional labour, moral distress, teamwork, communication, self-care, leadership, organisational behaviour, and clinical governance so that graduates can recognise both individual and systemic contributors to workplace stress. Preparing nurses to participate in shared governance and quality-improvement processes may also strengthen their ability to influence safer work environments.

ACKNOWLEDGEMENTS

The authors have no specific acknowledgements to declare.

Author Contributions

DS, L, and AW contributed to the conceptualization and design of the review. DS conducted the initial literature search and prepared the first draft of the manuscript. L and AW contributed to the literature evaluation, data synthesis, interpretation of the findings, and critical revision of the manuscript. All authors reviewed and approved the final manuscript and agreed to be accountable for the content of the work.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Conflict of Interest

The authors declare no conflict of interest.

REFERENCES

[1] World Helath Organization (WHO). State of the World's Nursing 2025: Investing in Education, Jobs, Leadership and Service Delivery. Geneva: 2025.

[2] Zabin LM, Zaitoun RSA, Sweity EM, de Tantillo L. The relationship between job stress and patient safety culture among nurses: a systematic review. BMC Nurs 2023;22:39. https://doi.org/10.1186/s12912-023-01198-9.

[3] Li LZ, Yang P, Singer SJ, Pfeffer J, Mathur MB, Shanafelt T. Nurse Burnout and Patient Safety, Satisfaction, and Quality of Care: A Systematic Review and Meta-Analysis. JAMA Netw Open 2024;7:e2443059. https://doi.org/10.1001/jamanetworkopen.2024.43059.

[4] Dall'Ora C, Saville C, Rubbo B, Turner L, Jones J, Griffiths P. Nurse staffing levels and patient outcomes: A systematic review of longitudinal studies. Int J Nurs Stud 2022;134:104311. https://doi.org/10.1016/j.ijnurstu.2022.104311.

[5] Lee SE, Hyunjie L, Sang S. Nurse Managers' Leadership, Patient Safety, and Quality of Care: A Systematic Review. West J Nurs Res 2023;45:176–85. https://doi.org/10.1177/01939459221114079.

[6] Page MJ, Mckenzie JE, Bossuyt PM, Boutron I, Hoffmann C, Mulrow CD, et al. The PRISMA 2020 statement : an updated guideline for reporting systematic reviews Systematic reviews and Meta-Analyses. Res Methods Report 2021;37. https://doi.org/10.1136/bmj.n71.

[7] Braun V, Clarke V. One size fits all? What counts as quality practice in (reflexive) thematic analysis? Qual Res Psychol 2021;18:1–26. https://doi.org/10.1080/14780887.2020.1769238.

[8] Scott-marshall HK. Safe limits on work hours for the nursing profession: a rapid evidence review. Front Glob Women's Heal 2024:1–21. https://doi.org/10.3389/fgwh.2024.1455422.

[9] Ditlopo P, Rispel LC, Van Bogaert P, Blaauw D. The impact of the nurse practice environment, workload, and professional support on job outcomes and standards of care at primary health care clinics in South Africa: A structural equation model approach. Int J Nurs Stud Adv 2024;7:100241. https://doi.org/10.1016/j.ijnsa.2024.100241.

[10] Raun M, Lassen A, Østervang C. Psychological Well-Being Among Nursing Staff in an Emergency Department: A Mixed-Methods Study. J Emerg Nurs 2025;51:238–48. https://doi.org/10.1016/j.jen.2024.10.021.

[11] Değirmenci Öz S, Baykal Ü. Nurses' views on emotional labor behavior: A qualitative study. Int J Healthc Manag 2023;16:645–51. https://doi.org/10.1080/20479700.2022.2118160.

[12] Bae S-H. Assessing the impacts of nurse staffing and work schedules on nurse turnover: A systematic review. Int Nurs Rev 2024;71:168–79. https://doi.org/https://doi.org/10.1111/inr.12849.

[13] Şenol Çelik S, Sariköse S, Çelik Y. Structural and psychological empowerment and burnout among nurses: A systematic review and meta-analysis. Int Nurs Rev 2024;71:189–201. https://doi.org/10.1111/inr.12878.

[14] Juanamasta IG, Aungsuroch Y, Gunawan J, Dino MJ, Polsook R. Prevalence of burnout and its determinants among Indonesian nurses : a multicentre study. Sci Rep 2024:1–9. https://doi.org/10.1038/s41598-024-63550-6.

[15] Figueiredo AR, Baixinho C, Lucas P. Nursing practice environment influences on retention and turnover intention: An umbrella review. Collegian 2026;33:8–17. https://doi.org/10.1016/j.colegn.2025.09.008.

[16] Bond C, Jarden R, Watson A, Jackson D. Organisational Factors and Nurses' Well-Being in the Workplace: An Integrative Review. J Adv Nurs 2025. https://doi.org/10.1111/jan.70333.

[17] Azhari MF, Makajil JD, Robinson F, Agustina D. Workplace spirituality and nurses ' well-being : integrative review (2015-2025) 2026;15:160–70. https://doi.org/10.11591/ijphs.v15i1.26888.

[18] Jiménez-García S, Flor-Martínez A. Interventions for preventing or reducing nurse burnout: A systematic review and meta-analysis. Int J Nurs Stud 2026;178:105391. https://doi.org/https://doi.org/10.1016/j.ijnurstu.2026.105391.

[19] Poortaghi S, Shahmari M, Ghobadi A. Exploring nursing managers' perceptions of nursing workforce management during the outbreak of COVID-19: a content analysis study. BMC Nurs 2021;20:27. https://doi.org/10.1186/s12912-021-00546-x.