The Impact of Work-Related Stress on Job Burnout among Nurses: A Systematic Review

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Abstract: The current study aims to systematically review and analyze the relationship between work-related stress and job burnout among nurses, focusing on how stress contributes to burnout development. This study followed the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (Prisma) guidelines. The review searched databases including Medline, Psyc Info, Pub Med, Scopus, Science Direct, and Web of Science from January 2018 to June 2024, supplemented by Google Scholar and manual reference list checks, with duplicate records removed. The review included 19 studies involving 10,486 nurses, including 18 cross-sectional and one qualitative study. Findings revealed a range of burnout and stress levels among nurses, from low to high, with most studies confirming a positive relationship between work-related stress and burnout. Additionally, some research indicated that work-related stress impacts burnout indirectly through various mediating factors. The review highlights the need for interventions that address stress management and mediators to effectively reduce burnout among nurses, suggesting that future research should focus on longitudinal studies and the exploration of mediators in diverse settings to better understand and mitigate burnout in nursing practice.

Key words: Burnout syndrome, work-related stress, nurses, systematic review

Introduction

Working in the healthcare services sector, especially in nursing, is widely recognized as highly stressful due to its complex nature, involving heavy workloads and demanding duties (Vidotti et al., 2018). Nurses are considered the backbone of healthcare, playing a vital role in saving lives and promoting patient health (Khamisa et al., 2015). Research

consistently indicates that the nursing profession is highly stressful, characterized by heavy workloads, insufficient staffing, and a poor work environment. Nurses are a unique professional group at greater risk of developing occupational health issues, such as burnout syndrome, compared to other healthcare workers (Samur & Seren Intepeler, 2019). Additionally, nurses may encounter emotionally challenging situations in their personal lives, and the struggle to balance work and personal life can result in emotional exhaustion, ultimately leading to burnout (Gandi et al., 2011).

Burnout syndrome is a job-specific condition characterized by heightened emotional, psychological, and physical stress experienced by workers due to prolonged exposure to various stressors in the workplace (Maslach, 2003). It can manifest as three distinct constructs: emotional exhaustion (EE), depersonalization (DP), and reduced personal accomplishment (PA). Workers experiencing job burnout typically face emotional exhaustion, demotivation, disengagement, feelings of incompetence or failure in fulfilling their duties, and may develop negative attitudes towards their co-workers and the workplace (Montero-Marin et al., 2014).Burnout syndrome among nurses is a significant global public health issue, with studies reporting alarming prevalence rates ranging from 11% to 85% (Al Sabei et al., 2019; Cañadas-De la Fuenteet al., 2018; Gómez-Urquizaet al., 2017; Liet al., 2018; Monsalve-Reyeset al., 2018; Rezaei et al., 2018;Qedair et al., 2022; Woo et al., 2020). For instance, a Monsalve-Reyeset al. (2018) conducted a systematic review and meta-analysis of 61 studies, involving a sample of 45,539 nurses from 49 countries and various specialties, revealed that the overall global prevalence of burnout syndrome among nurses was 11.23%. Studies from the United States have reported burnout prevalence rates among nurses ranging from 15% to 45% (Dyrbye et al., 2019; Li et al., 2018). A cross-sectional study revealed that 33% of hospital nurses experienced burnout in Belgium (van Bogaert et al., 2014). In Iran, systematic reviews and meta-analyses have reported that the prevalence of burnout among nurses varies between 36% and 66% (Rezaei et al., 2018). In Oman, a cross-sectional study found that 65.6% of hospital nurses experienced high levels of job burnout (Al Sabei et al., 2019).In Saudi Arabia, Qedair et al., (2022) conducted a cross-sectional study at a single center and found that 44.8% of 250 hospital nurses in Jeddah city experienced burnout syndrome. Additionally, a study conducted by Shahinet al. (2020) on nurses working in primary healthcare centers across Saudi Arabia reported burnout prevalence rates of 39% for high emotional EE and 38% for high DP, with 85.5% of participants exhibiting elevated levels in at least one burnout dimension.

Work-related stress arises when workers cannot adequately respond to job demands, leading to psychological and physiological pressure (Clough et al., 2017). This abnormal response varies among individuals and can cause diverse physical, emotional, and

behavioral symptoms (Clough et al., 2017; Vidotti et al., 2018). Nurses, in particular, face higher work-related stress due to emotional challenges, role ambiguity, inadequate staffing, heavy workloads, and conflicts (Khamisa et al., 2015). This issue is prevalent globally, with stress rates among nurses ranging from 9.2% to 68%. In the USA, stress rates range from 83% to 93% (Bardhan et al., 2019), 68.3% in China (Gu et al., 2019), 37.5% to 63.5% in Iran (Chatzigianni et al., 2018; Isfahani et al., 2021), 48.4% to 66.2% in Ethiopia (Baye et al., 2020; Tsegaw et al., 2022), 34.7% to 60.3% in Saudi Arabia (Abdoh et al., 2021; Alanazi et al., 2019), and 44.0% in the UK (Stephenson, 2020).

Nursing, while rewarding, is highly stressful, leading to challenges like job stress and burnout that affect nurses' well-being and pose organizational issues (Vidotti et al., 2018). Chronic job stress is especially hard to manage and significantly contributes to burnout syndrome among nurses (Al Sabei et al., 2022; Gu et al., 2019; Liao et al., 2020). Despite awareness of these problems, comprehensive evidence on how work-related stress fosters burnout is lacking. This study aims to systematically review the relationship between work-related stress and job burnout among nurses, focusing on stress's role in developing burnout.

Materials and Methods

Study Design

The present study employs a systematic review design, adhering to the guidelines set forth by Prisma (Urrutia & Bonfill, 2010).

Search Strategy and Selection Criteria

Various databases were employed in this systematic review Medline, Psycinfo, PubMed, Scopus, Science Direct, and Web of Science. Additional research was gathered through Google Scholar and by manually reviewing the reference lists of the selected papers. The search terms used included: “nurses’ burnout and workplace stress”, “nurses’ burnout and work-related stress”, “Stress and nurses’ burnout”, “nurses’ burnout and occupational stress”, and “nurses’ burnout and job stress”.

This review included English-language, peer-reviewed articles from January 2018 to June 2024, focusing on hospital nurses and the correlation between work-related stress and burnout. Excluded were non-English, non-correlational, and interventional studies. Reviewers screened titles, abstracts, and critically reviewed eligible full texts.

Quality Appraisal

The quality appraisal of the included studies was conducted by examining several critical aspects, such as the study location, objectives, study population and sample

characteristics, methods employed, sampling design, adequacy of the statistical analyses reported, results, outcome measures, and the instruments utilized. This thorough evaluation ensured that only studies adhering to high standards were incorporated into the systematic review, thereby strengthening the reliability and validity of the review's conclusions.

Results

Identification and selection of studies

Figure 1 illustrates the PRISMA-guided literature search, beginning with 848 records from various databases (PubMed, MEDLINE, Science Direct, Scopus, PsycINFO, Web of Science, and Google Scholar). After removing 628 duplicates, 220 records were screened, excluding 164. Following a full-text review of 56 papers and scanning references, 19 studies (1 qualitative, 18 cross-sectional) were included in the systematic review.

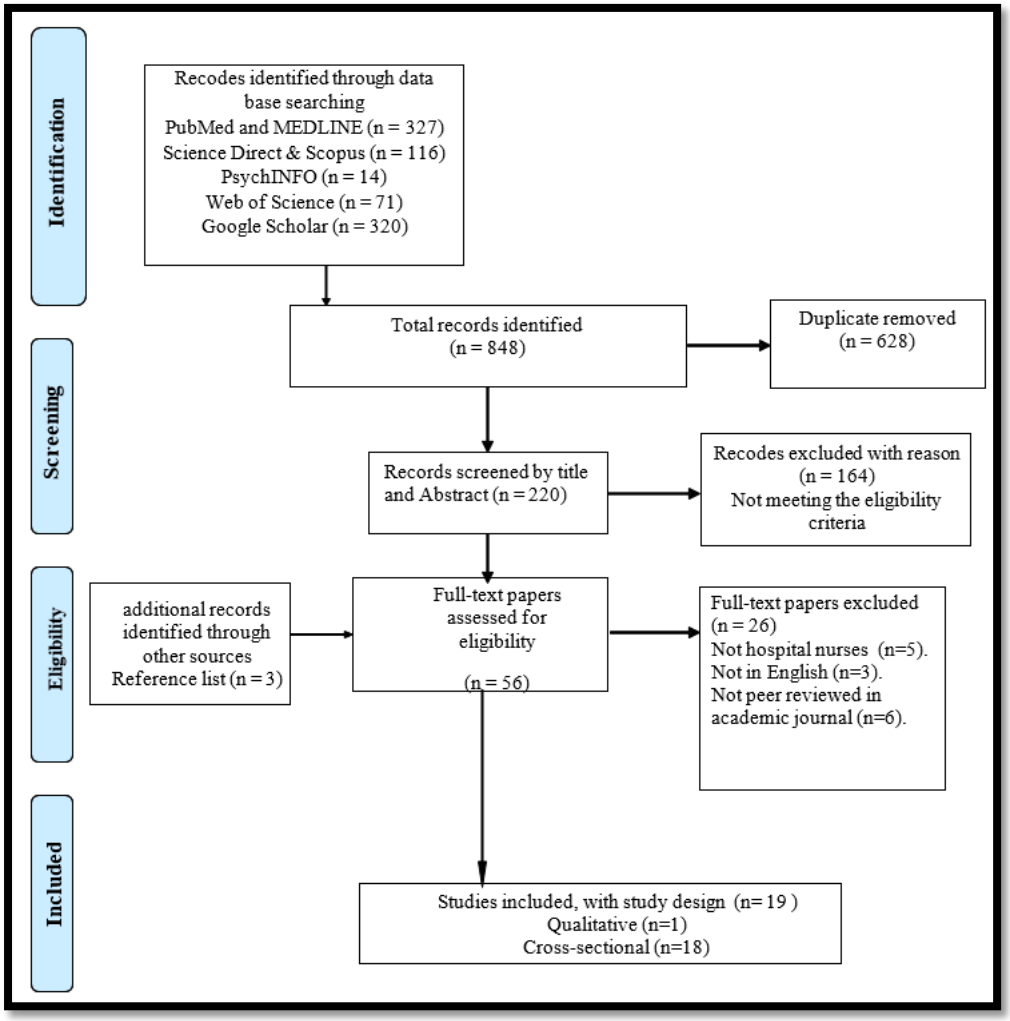

Figure 1. Literature search flowchart based on Prisma.

Quality Assessment

Description of Study Characteristics

Table 1 presents descriptive details and quality appraisals for the seventeen selected studies, which span fourteen countries: Bangladesh, China, Egypt, Iran, Italy, Malaysia, Mexico, Namibia, Oman, Romania, Saudi Arabia, South Korea, Taiwan, and Turkey. Notably, five studies were conducted in China, with one study each from the other countries. Eighteen studies were quantitative and cross-sectional, while one qualitative study by Ashipala and Nghole (2022). Two studies directly examined the relationship between work-related stress and burnout (Cotrau et al., 2019; Palit et al., 2024). Other studies explored this relationship alongside variables like sociodemographics, perceived work environment, job performance, and quality of life..

Study Population and Sample Size

All the studies were conducted in hospital settings and obtained ethical approval, except Cotrau et al. (2019). The research consistently targeted hospital nurses with clear aims and well-defined outcomes. Appropriate methods and analyses were used across studies, though Cotrau et al. (2019) lacked comprehensive reporting. Sampling varied, with some studies using random methods while others relied on convenience or purposive sampling. Four studies had small sample sizes and non-random sampling, which could limit participant diversity and introduce bias. Despite this, the overall quality was rated from moderate to high. All studies identified correlations between work-related stress and job burnout, with Ashipala and Nghole (2022) emphasizing the link..

Across 19 studies, 10,486 hospital nurses, both male and female, were examined to explore the link between burnout and job-related stress. One study specifically focused on female nurses (Yuan et al., 2023).

Description of Outcome Measures

As for measuring burnout syndrome, theMaslach Burnout Inventory-Human Services Survey (MBI-HSS)orthe Maslach Burnout Inventory-General Survey (MBI-GS) validated tools were used in 16 cross-sectional studies (Ahmed et al., 2022; Acosta-Ramos et al., 2021; Akkoç et al., 2020; Al Sabei et al., 2022; Cha et al., 2022; Cotrau et al., 2019; Hamid & Hee, 2024; Lee et al., 2021; Liao et al., 2020; Liao et al., 2022; Li et al., 2021; Liu et al., 2021; Palit et al., 2024; Song et al., 2020; Zaghini et al., 2020; Yuan et al., 2023). Two studies utilized different scales: Abdollahi et al. (2021) employed the Copenhagen Burnout Inventory (CBI), while Falatah and Alhalal (2022) used the Professional Quality of Life Scale version 5 (PROQOL5) developed by Stamm (2009) to assess compassion fatigue, including burnout and post-traumatic stress.

On the other hand, different instruments were used to measure work-related stress across studies. The Effort-Reward Imbalance Questionnaire (ERI) was applied in one study (Li et al., 2021). The Nurse Stress Scale (NSS) was utilized in a study by Acosta-Ramos et al. (2021). The Expanded Nursing Stress Scale (ENSS) was employed in two studies (Cotrau et al., 2019; Palit et al., 2024). The work-related stress scale was used in one study (Akkoç et al., 2020). The Nurse Stress Checklist was applied in another study (Liao et al., 2022). The Perceived Stress Scale (PSS) appeared in two studies (Abdollahi et al., 2021; Song et al., 2020; Hamid & Hee, 2024). The Health and Safety Executive Scale (HSE) was used in a study by Zaghini et al. (2020). The Work Stress Scale was employed in two studies (Lee et al., 2021; Yuan et al., 2023). The Nurse Stressor Scale was used in one study (Liu et al., 2021). The Conditions of Work Effectiveness Questionnaire-II (CWQ-II) was utilized in a study by Al Sabei et al. (2022). The Korean Occupational Stress Scale (KOSS) was applied in a study by Cha et al. (2022). Ahmed et al. (2022) used the Work-related Stressor Scale, while Falatah and Alhalal (2022) employed the Work-related Strain Intervention.Liao et al. (2020) used Nursing Work Index-Revised.

Levels of Burnout and Work-Related Stress

Among the included studies, 15 cross-sectional studies demonstrated varying levels of overall burnout. Specifically, two studies found low levels of job burnout among nurses (Hamid & Hee, 2024; Zaghini et al., 2020), seven studies reported moderate levels (Abdollahi et al., 2021; Acosta-Ramos et al., 2021; Akkoç et al., 2020; Cha et al., 2022; Cotrau et al., 2019; Falatah & Alhalal, 2022; Li et al., 2021), and six studies identified high levels of burnout (Ahmed et al., 2022; Al Sabei et al., 2022; Liao et al., 2022; Liu et al., 2021; Palit et al., 2024; Yuan et al., 2023). However, Lee et al. (2021), Liao et al. (2020), and Song et al. (2020) did not provide burnout level data.

Similarly, across 15 cross-sectional studies, the levels of work-related stress were found to range from moderate to high. Specifically, five studies reported moderate levels of work-related stress (Abdollahi et al., 2021; Acosta-Ramos et al., 2021; Al Sabei et al., 2022; Cha et al., 2022; Hamid & Hee, 2024), while 10 studies identified high levels (Ahmed et al., 2022; Akkoç et al., 2020; Cotrau et al., 2019; Falatah & Alhalal, 2022; Li et al., 2021; Liao et al., 2022; Liu et al., 2021; Palit et al., 2024; Yuan et al., 2023; Zaghini et al., 2020). Nevertheless, three studies reported the mean scores of job stress but did not show specific data on work-related stress levels (Lee et al., 2021; Liao et al., 2020; Song et al., 2020).

Effect of Work-Related Stress on Job Burnout among Nurses

Among the 18 cross-sectional studies reviewed, nine studies established a positive and significant impact of work-related stress on job among nurses (Ahmed et al., 2022; Al

Sabei et al., 2022; Akkoç et al., 2020; Cotrau et al., 2019; Hamid & Hee, 2024; Falatah & Alhalal, 2022; Li et al., 2021; Palit et al., 2024; Zaghini et al., 2020).

Meanwhile, six studies demonstrated that the effect of job-related stress on job burnout in nursing staff is mediated by other variables, including reduced anger expression (Lee et al., 2021), perceived social support from society (Liu et al., 2021), psychological capital, resilience (Cha et al., 2022), sleep quality (Song et al., 2020), occupational commitment and social support (Liao et al., 2022), and work-family conflict and anxiety (Yuan et al., 2023).

One study found a positive relationship between job burnout and perceived stress among nurses in Iran; however, this relationship weakened when the moderating effect of self-compassion was taken into account (Abdollahi et al., 2021).Another one study considered the hierarchical structure of occupational burnout across various units and hospitals to evaluate the impact of job-induced stress on burnout among nurses. The findings indicated that job-induced stress significantly and positively affected burnout, particularly in terms of EE and DP. However, at the unit level, the study did not observe any significant effect of job-induced stressors on occupational burnout among hospital nurses (Liao et al., 2020). In the meantime, one study found that job stress did not have a statistically significant effect on job burnout among nurses (Acosta-Ramos et al., 2021).

Finally, the qualitative study conducted by Ashipala and Nghole (2022) highlighted that job burnout is linked to several work-related stressors, such as the absence of wellness programs in the workplace, ineffective staff management, insufficient resources, and lack of support.

Discussion

This systematic review analyzed the impact of work-related stress on job burnout among nurses, synthesizing findings from 18 cross-sectional and one qualitative study (Jan 2018–Jun2024). Results show varied burnout levels, influenced by work environments, cultural contexts, and healthcare systems. The use of different measurement tools, mainly MBI-HSS and MBI-GS, contributed to these differences (Al Sabei et al., 2019; Dyrbye et al., 2019; Gandi et al., 2011; Samur & Seren Intepeler, 2019). Most studies reported high work-related stress levels, consistent with nursing's demanding nature, emotional labor, and limited resources (Clough et al., 2017; Vidotti et al., 2018).

Moreover, this review highlighted that about more than one-half of the studies confirmed the positive impact of work-related stress on the development of burnout syndrome among nurses (Ahmed et al., 2022; Al Sabei et al., 2022; Akkoç et al., 2020; Cotrau et al., 2019; Hamid & Hee, 2024; Falatah & Alhalal, 2022; Li et al., 2021; Palit et al., 2024; Zaghini et al., 2020). On the other hand, a number of studies reported that work-related stress

indirectly affected the development of burnout syndrome through several factors including anger expression (Lee et al., 2021), perceived social support from society (Liu et al., 2021), psychological capital, resilience (Cha et al., 2022), sleep quality (Song et al., 2020), occupational commitment and social support (Liao et al., 2022), and work-family conflict and anxiety (Yuan et al., 2023).

The current study has potentially significant implications for nursing practice and research. The findings suggest that interventions addressing work-related stress and its mediators could play a crucial role in reducing burnout among nurses. Such interventions may include strengthening social support systems, fostering resilience, improving sleep quality, and managing work-family conflict. Additionally, organizational measures, like enhancing staff management and ensuring adequate resources, are vital for addressing burnout at a systemic level. Governments, healthcare organizations, and policymakers should act in this direction to prepare healthcare systems and nurses for better management of burnout and job stressors.

Future research should focus on longitudinal studies to better understand the causal relationship between work-related stress and burnout. Exploring the influence of various mediators in different cultural and organizational contexts can also offer deeper insights into effective strategies for mitigating burnout in nursing.

Conclusion

This systematic review highlighted the significant impact of work-related stress on job burnout among nurses, with varying levels of burnout reported across studies. The complex relationship between stress and burnout, influenced by various mediators, emphasized the need for targeted interventions at both the individual and organizational levels. Addressing these factors is crucial for improving nurses' well-being and ensuring high-quality healthcare delivery.

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Table 1. Summary of the included studies in the review

Author, Year, Country	Study Population	Study Design	Aim	Findings	Strengths	Limitations
Cotrau et al. (2019), Romania	ICU hospital nurses (29)	Quantitative, cross-sectional	To assess the relationship between occupational stress and burnout levels; To assess the link between occupational stress, burnout, and job satisfaction	Significant correlations with ENSS and MBI domains; High burnout levels and work-related stress; Moderate job satisfaction levels	Use of validated instruments (MBI-HSS, ENSS, Single-Item Measure of Job Satisfaction); Appropriate statistical analyses	Small sample size; Convenience sampling; Lack of extensive discussion on results; Ethical considerations not clearly addressed; Single-center study, limited generalizability
Akkoç et al. (2020), Turkey	Full-time hospital nurses (386)	Quantitative, cross-sectional	To assess the relationship between role-related stressors and burnout levels; To assess the relationship between work-related stress and burnout levels; To assess the mediating effect of work-related stress on the relationship	Significant correlations between role-related stressors and burnout; Significant correlation between work-related stress and burnout; Work-related stress mediates the relationship between	Use of structural equation modeling; Clear methods; Use of validated tools; Ethical considerations clearly described	Insufficient sample size for proposed model; Single-center study, limited geographical variation; Convenience sampling; Only full-time nurses

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			between role-related stressors and burnout levels	role-related stressors and burnout		
Liao et al. (2020), Taiwan	Hospital nurses (2605)	Quantitative, cross-sectional	To investigate the association of occupational burnout with job-induced stress, nurse self-concept, and practice environment using hierarchical modeling	Job-induced stress significantly affects EE and DP; Nurse self-concept significantly affects EE, DP, and PA; No significant unit-level relationship identified	Large sample size; Inclusion of different hospital nurse types; Proper statistical analyses; Use of validated tools; Consideration of department and hospital-level variations	Cross-sectional design limits causal inference; Convenience sampling; Small number of hospitals limits generalizability
Song et al. (2020), China	Hospital nurses (1013)	Quantitative, correlational, cross-sectional	To investigate the relationship between perceived stress and job burnout among hospital nurses; To assess the mediation effect of sleep quality on the relationship between perceived stress and job burnout	Positive association between perceived stress, reduced sleep quality, and job burnout; Perceived stress indirectly affects burnout through sleep quality	Adequate sample size; Appropriate statistical analyses; Proportional sample size from different departments; Use of validated tools; Clear ethical considerations	Cross-sectional design limits causal inference; Potential response bias from self-reported questionnaires; Single geographical area, limited generalizability

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Zaghini et al. (2020), Italy	Hospital nurses (207)	Quantitative, correlational, cross-sectional	To investigate the relationship between emotional labour, work-related stress, and burnout among nurses; To assess the mediating effect of work-related stress on the relationship between emotional labour and burnout	Average levels of emotional labour; High levels of work-related stress and burnout; Work-related stress mediates the relationship between emotional labour and burnout	Proper statistical analyses; Use of validated tools; Clear methods, results, and discussions; Ethical considerations clearly described	Small sample size, limited generalizability; Convenience sampling; Cross-sectional design, potential biases and limits causal inference
Abdollahi et al. (2021), Iran	Hospital nurses (150)	Quantitative, cross-sectional	To assess the relationship between burnout, perceived stress, and self-compassion; To assess the moderation effect of self-compassion on the relationship between perceived stress and job burnout	Significant association between perceived stress and burnout; Self-compassion moderates and reduces the effect of perceived stress on burnout	Appropriate statistical analyses; Use of validated questionnaires; Clear methods, results, and discussions; Ethical considerations clearly described	Low sample size for SEM; Convenience sampling; Cross-sectional design limits causal inference
Acosta-Ramos et	Public hospital	Quantitative, descriptive,	To investigate the association between	No significant correlation between	Adequate sample size and sampling design;	Correlation coefficient between work stress

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al. (2021), Mexico	nurses (424)	cross-sectional	burnout syndrome, work stress, and sociodemographic factors; To examine the association between burnout and work-related stress	burnout and work stress; Females had higher levels of burnout and stress Work shift, position, department, and sex contribute to burnout	High response rate; Appropriate statistical analyses; Use of validated instruments; Clear ethical considerations	and burnout not reported; Results may not be generalizable; Potential biases such as nonresponse and recall bias
Li et al. (2021), China	Surgical nurses (488)	Quantitative, Cross-sectional	To examine the relationship between work stress, job burnout, and quality of life among surgical nurses	Occupational stress directly affects job burnout; Significant associations between burnout and occupational stress subscales; DP associated with reward subscale only	Use of cluster random sampling; Use of validated instruments; Reasonable response rate; Structural equation modeling used	Cross-sectional design limits causal inference; Limited to surgical nurses and tertiary hospitals, limited generalizability
Lee et al. (2021), South Korea	Hospital nurses (454)	Quantitative, cross-sectional	To identify the direct and indirect effects of work-related stress on burnout; To assess the mediating effect of anger expression on the	Work-related stress directly affects burnout; Anger expressions mediate the relationship between work-	Adequate sample size; Use of validated tools; Structural equation modeling used; Clear methods, results, and discussions; Ethical	Cross-sectional design limits causal inference; Single-center study, limited generalizability; Potential response

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			relationship between work-related stress and burnout	related stress and burnout	considerations clearly described	bias from self-reported questionnaires
Liu et al. (2021), China	Hospital nurses (766)	Cross-sectional	To investigate the relationships between occupational burnout, job stress, psychological capital, and perceived support from society among hospital nurses	Job stress, psychological capital, and perceived social support significantly impact burnout; Indirect relationship between job stress and burnout through psychological capital and social support	Appropriate sampling frame and sample size; Use of validated instruments; Proper statistical analyses; Clear methods, results, and discussions; Ethical considerations clearly described	Cross-sectional design limits causal inference; Single-region sample, limited generalizability
Ahmed et al. (2022), Egypt	Hospital nurses (100)	Cross-sectional, correlational, descriptive	To examine the relationship between occupational stress, burnout, and job performance; To examine the impact of occupational stress and burnout on job performance	Positive relationship between occupational stress and burnout; Negative effects of occupational stress and burnout on job performance	Appropriate statistical analyses; Use of validated instruments; Clear methods, results, and discussions; Ethical considerations clearly described	Single-center study, limited generalizability; Cross-sectional design limits causal inference; Potential response bias from self-reported questionnaires

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Al Sabei et al. (2022), Oman	Nurses (351)	Quantitative, Cross-sectional	To examine the impact of perceived work-environment, empowerment, and psychological stress on burnout in nurses during COVID-19	65.6% of nurses had high levels of job burnout; Perceived work environment and structural empowerment significantly associated with job burnout	Adequate sample size; Use of validated instruments; Clear methods, results, and discussions; Ethical considerations clearly described	Cross-sectional design limits causal inference; Single-center study, limited generalizability
Ashipala & Nghole (2022) Namibia	Hospital Nurses (20)	Qualitative, exploratory, descriptive	To identify factors contributing to burnout among nurses at a district hospital in Namibia.	Burnout is linked to multiple work-related stressors including poor management, insufficient resources, lack of support, and absence of wellness programs in the workplace.	Sample size was adequate, appropriate analysis and themes clearly identified, well-presented methods, results, and discussions, with ethical considerations addressed.	Findings are based on a single district hospital, limiting generalizability, with potential bias influenced by regional, social, and cultural factors.
Cha et al. (2022) South Korea	Hospital Nurses (271)	Quantitative, Cross-sectional	To explore the relationship between job stress, burnout, and resilience.	Job stress negatively impacts resilience and positively correlates with	Appropriate statistical analysis, use of validated instruments (MBI-GS, KOSS, K-	The cross-sectional design limits the ability to establish causality; study's

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				burnout; resilience inversely related to burnout, with an indirect link between job stress and burnout via resilience.	CD-RISC), comprehensively presented methods, results, and discussions, with ethical considerations detailed.	scope confined to southern South Korea, potentially affecting generalizability; conducted during the COVID-19 pandemic.
Falatah & Alhalal (2022) Saudi Arabia	Hospital Nurses (161)	Quantitative, Descriptive, Cross-sectional	To examine the direct and indirect effects of work-related stress on compassion fatigue, burnout, and job-related well-being.	Moderate levels of burnout and high work-related stress were observed; a positive correlation between work-related stress, burnout, and post-traumatic stress; partial mediation effect observed.	Sample size determined by power analysis; validated tools used (PROQOL5, work-related strain inventory, JAWS); extensive statistical analysis; clear presentation; ethical considerations addressed.	Limited to a single university hospital in Riyadh, with generalizability concerns; self-reported data may introduce bias; cross-sectional design may affect external validity.
Liao et al. (2022) China	Pediatric Nurses (488)	Quantitative, Cross-sectional	To investigate the direct and indirect effects of work stress on burnout, considering	Significant positive direct impact of work stress on emotional exhaustion (EE) and depersonalization	Adequate sample size; validated tools (MBI, Work Stress Scale, Personal Accomplishment	Cross-sectional design limits causal inferences; sample restricted to one region, limiting

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			occupational commitment and social support.	(DP); negative impact on personal accomplishment (PA); PA mediates the relationship between work stress and other burnout dimensions.	Scale); comprehensive statistical analysis; clear methods, results, and discussion; ethical considerations detailed.	generalizability; potential response bias from self-reported questionnaires.
Yuan et al. (2023) China	Female Nurses (2172)	Quantitative, Cross-sectional	To explore the relationship between work-related stress and burnout, considering the mediating roles of work-family conflict and anxiety.	Work-related stress indirectly linked to burnout via work-family conflict and anxiety among female nurses.	Adequate sample size; appropriate statistical analysis; use of validated instruments; clear presentation of methods, results, and discussions; ethical considerations detailed.	Study confined to one province, limiting generalizability; potential response bias from self-reported data.
Hamid & Hee (2024) Malaysia	Public Hospital Nurses (316)	Quantitative, Cross-sectional	To determine burnout levels and the relationship between work-related stress and burnout.	Low prevalence of burnout among nurses; psychological and social stress positively related to emotional	Large sample size; appropriate study design and statistical analysis; validated instruments used.	Study conducted at a single center, limiting generalizability; potential response bias from self-reported surveys.

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				exhaustion and depersonalization, with social stress negatively related to personal accomplishment.		
Palit et al. (2024) Bangladesh	Critical Care hospital Nurses (112)	Quantitative, Cross-sectional	To examine the association between work-related stress and burnout syndrome among nurses in critical care units.	High levels of burnout observed in 48% of nurses; positive correlation between job stress and overall burnout syndrome and its three dimensions.	Appropriate study design and statistical analysis; validated instruments used.	Small sample size, limiting generalizability; potential response bias from self-reported surveys.