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OCCUPATIONAL STRESS AMONG NURSE TEACHERS: A SYSTEMATIC REVIEW

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Abstract:

Introduction:

The nursing profession lies at the centre of today's evolving global health environment, where front-line providers must adapt to pressures of safety, technology, and increasing clinical and academic demands. Nurses, as key facilitators in developing competent professionals, face intensified occupational stress due to technological evolution and organizational pressures. Persistent stress adversely affects their psychological well-being, teaching effectiveness, and the overall quality of healthcare delivery. Despite its growing importance, limited systematic research has explored the sources, consequences, and coping mechanisms of occupational stress among nurse teachers.

Methods:

A systematic review of primary research studies from 2015–2023 was conducted to assess the sources, consequences, and solutions to job stress in nursing practice. The Job Demand- Control model, Effort-Reward Imbalance model, and Transactional Theory of Stress and Coping guided the identification of major stressors, their effects, and evidence-based interventions for stress reduction.

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Results:

Findings revealed that heavy workload, low support, shift work, role stress, and interpersonal conflict collectively contribute to high stress levels among nurse educators. Unmanaged stress leads to burnout, decreased empathy, impaired clinical reasoning, and withdrawal from work, resulting in turnover and reduced care quality. These factors ultimately affect patient outcomes, healthcare system effectiveness, and organizational sustainability. Emotional exhaustion and depersonalization further diminish nurses' capacity for mindful, empathetic care and sound decision-making.

Discussion and conclusion:

Addressing occupational stress among nurse teachers requires multi-level interventions. Organizational initiatives such as psychosocial safety climate policies, flexible scheduling, and leadership training are vital. Team-based strategies—structured communication, debriefing, and consensus-building—along with individual resilience-building and mindfulness training can mitigate stress. The review underscores the need for culturally relevant, longitudinal research to evaluate intervention sustainability, especially in low-resource settings. Supporting nurses through structural, team, and individual strategies enhances care quality, workforce retention, and overall healthcare resilience.

Keywords: Occupational stress, nurse teachers, burnout, coping strategies, psychosocial safety, systematic review

1 Introduction

1.1 Nurses – Pillars of the Healthcare System

Nurses account for the foundation of contemporary healthcare delivery systems. They provide healthcare in a variety of different roles as a provider of patients, an administrator, an emotional being, and a clinical decision-maker. The demand for healthcare delivery systems is constantly changing and becoming more complex, as diseases, including COVID-19, continue to evolve. As a result, nurses' once broad scope of roles became even broader and escalated, without a similar increase at the systemic level. Chakraborty et al. (2023) completed a study to highlight the pivotal role of the nurse, and their role as other practitioners have become indispensable, particularly through covid [1]. Nurses were at the forefront of the pandemic; they supported patient care, while navigating their own mental and emotional well-being, being thrust into new

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and diverse technologies. The study highlighted mobile health apps as a tool that prompted communication to connect the health professionals, while also adding to the cognitive burden to nurses in recognizing the vastness of their roles.

Kaburi et al. [2], in a study conducted in Ghana in 2019, examined the employment settings of nurses, and illustrated the high psychological and physical demands imposed on nurses in low-resource healthcare settings (see figure 1). Despite system deficiencies, nurses are able to maintain quality care delivery but regularly faced challenges to their mental health in the process. They further pointed out that nurses are typically operating in settings that require them to sustain their attention for a long period of time, exhibit a high level of emotional involvement, and perform multiple tasks, frequently in settings with not enough staff and/or medical resources.

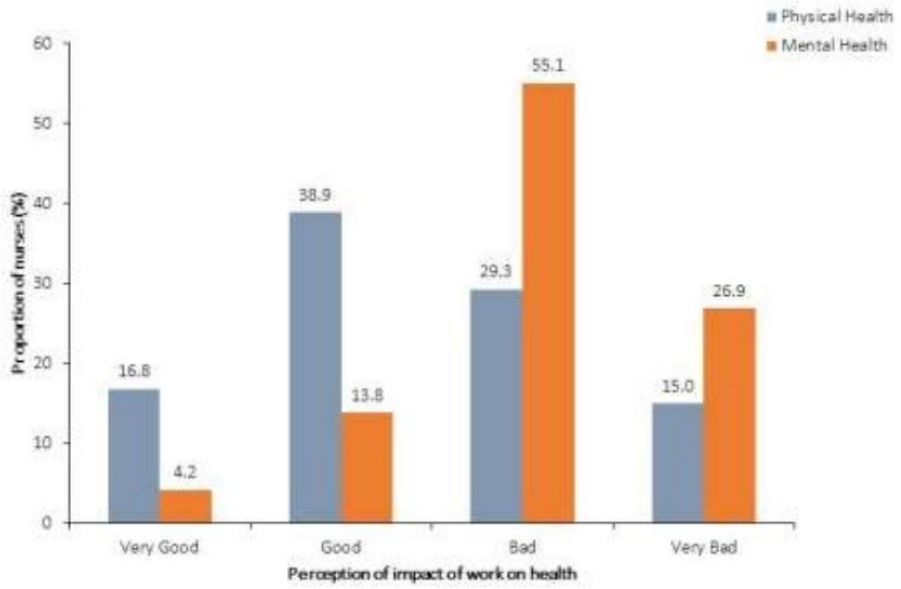

Figure 1 – Impact of Work on Nurses Health, Salaga Government Hospital [2]

Additionally, Kim and Kim [3] established through a meta-analysis of global literature that nurses' organizational commitment and job satisfaction influence their intentions to leave the profession. Higher levels of emotional exhaustion related to continuous obligations led nurses to express turnover intentions, which indicates how systems pressures threaten the sustainability of the nursing workforce. Lan et al. [4] described the correlation between the organizational

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climate of healthcare institutions and nurses' organizational commitment in Taiwan. Their findings suggest that when nurses experience their organizational climate as supportive, empowering, and valuing their roles, they showed more resilience and commitment. In contrast, nurses in unsupporting climates expressed feelings of detachment and demonstrated feeling undervalued and less engaged with what it meant to be a nurse. In South Korea, Kim and Kang [5] researched clinical innovations—specifically visual media therapy—that aid in decreasing stress with nursing professional leads to psychological burden as well as physical (Kim, 2020). They established that nursing professionals are frequently subjected to emotional labor and stress from society. Participants of the visual media intervention reported some modest yet meaningful decreases in perceived stress stating the need for ongoing mechanisms for further psychological support for nursing professionals.

In summary, all of the studies indicate that nursing professionals are an essential element of healthcare. Moreover, they are also facing multiple stressors not only due to long working hours and ethical dilemmas, as well as lack of institutional support, and emotional plant burden which affects personal health and in turn the health of the populations being served. As health systems across the globe aim for resilience and equity, the systemic and psychological burden facing nurses must be prioritized. While nurses form the backbone of healthcare systems, their roles expose them to chronic stressors that jeopardize their wellbeing, as explored next.

1.2 Occupational Stress in Nursing: A Hidden Crisis

Occupational stress in the nursing profession is an increasing public health concern that affects the nurse, patient outcomes, morale of teams, and institutional continuity. Occupational stress is different from transient job dissatisfaction in that it is often chronic and is a product of the imbalance between the demands of the position and the resources required of the nurse. When this imbalance continues for an extended period, it can lead to psychological burnout, lower efficacy at work, and retirement from Nursing or high staff turnover. Singh et al. [6] conducted a cross-national study of nurse academics and clinical trainers in Australia and found that common factors contributing to occupational stress were workplace bullying, overwhelming administrative duties, and role conflict in the educational environments surrounding nursing. Regardless of the limitations of focusing solely on nurse educators, it demonstrates that stress

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exists in all roles in the profession of nursing.

Tran et al. [7] conducted a large-scale Vietnamese study that aimed to assess the prevalence of stress, anxiety, and depression experienced by clinical nurses from both urban and rural hospitals. The authors noted that over 50% of the surveyed clinical nurses reported symptoms of clinical stress; the most affected nurses were younger nurses and those nurses working rotating shifts. The authors reported concerning gaps in mental health support from organizations for all, particularly for novice nurses transitioning from academic to practice and clinical environments. Chatzigianni et al. [8], undertaking an analysis on Greek public hospitals highlighted samples of understaffing, lack of recognition, aggressive patient behavior as stressors with bedside nurses. The authors highlighted not only links to emotional exhaustion, but links to worsening empathy, a key soft skill of effective patient care etc. Their findings suggested that stress was affecting nurses' ability to create compassionate relationships with patients hindering an ability to deliver whole person care.

From an organizational perspective, Amanda et al. [9] investigated the effect of compensation on work stress experienced by nurses in Indonesia. The results confirmed that inadequate salary, along with overtime and lack of opportunity for advancement, contributed to emotional exhaustion. Therefore, the authors suggested that, in regard to stress management, compensation should be employed as a stress management tool rather than as a monetary exchange. In a Chinese study, Gu et al. [10] examined the direct relationship between occupational stress and sleep quality. High workplace stress led to nurses being three times more likely to suffer from insomnia and fatigue syndromes. Lack of sleep is associated with poor error reporting, emotional irritability, and reduced immunity. This article highlighted the physiological consequences of nursing stress and the need to adopt a holistic approach to stress management.

Pearson correlation between occupational and psychosomatic wellbeing.

Items	Anxiety	Depression	Somatic symptoms	Sleep quality
Occupational stress	0.374*	0.377*	0.312*	0.265*
PC	0.269*	0.294*	0.236*	0.220*
WTP	0.294*	0.273*	0.225*	0.186*
REP	0.230*	0.237*	0.199*	0.145*
PCI	0.326*	0.322*	0.277*	0.238*
IRMP	0.342*	0.346*	0.281*	0.232*

IRMP = interpersonal relationships and management problem, PC = professional and career issues, PCI = patient care and interaction, REP = resource and environment problem, WTP = workload and time pressure.
* <.01 (2-tailed).

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Figure 2 – Correlation between sleep quality and occupational stress in nurses [10]

Additionally, stress does not exist in a vacuum; it will most likely interact with a more intersectional understanding of culture and gender influence, marital status, shift pattern, and area of specialty. As these different studies show, regardless of location or model of health care delivery, nurses are confronted with a combination of emotional, cognitive, physical, and organizational demands that few professions do on a consistently daily basis. These studies underscore that occupational stress among nurses is not just an outcome of "personal failure" or weak "coping capacity," however it is a structural and cultural risk due to organizational context. If we do not properly frame and manage this risk holistically, we may eventually impact nurse organizational morale, patient risk, and ultimately the construct of organizational resilience.

1.3 Job Satisfaction and Its Interplay with Stress

Job satisfaction is a multidimensional concept, which includes emotional fulfillment, work-life balance, acknowledgement, independence at work, and values sharing with the organization. In nursing, job satisfaction is more than an individual feeling or sentiment; it is directly linked to patient safety, continuity of care, and other health service outcomes. A number of studies suggest that job stress and job satisfaction are interrelated, such that high stress corresponds to low satisfaction (including work engagement), and low satisfaction also exacerbates perceived job stress. A multicenter study conducted by Portero de la Cruz and Cebrino [11] in Spain assessed burnout, stress, and job satisfaction using validated instruments administered to nurses in different departments of a number of hospitals. In their study, Portero de la Cruz and Cebrino noted that nurses perceived defi-nitely higher PSS scores than previous research, but job satisfaction scores and perceived stress levels were negatively associated, and nurses with feelings of high emotional exhaustion and low feelings of self-accomplishment reported dissatisfaction in their professional context (as opposed to their individual capacity). They also found that job satisfaction ratings were highest among nurses who perceived their workloads as manageable, and felt their supervisors and peers were providing the support necessary to maintain their professional responsibilities and the demands of their workload.

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	M (SD)	EE	DP	PA	A	B	C	D	GHQ	PSS	FRQ	PFC	EFC	AC
		CC (*p*-Value)	CC (*p*-Value)	CC (*p*-Value)	CC (*p*-Value)	CC (*p*-Value)	CC (*p*-Value)	CC (*p*-Value)	CC (*p*-Value)	CC (*p*-Value)	CC (*p*-Value)	CC (*p*-Value)	CC (*p*-Value)	CC
EE	17.04 (11.25)	1												
DP	8.47 (6.34)	0.62 (0.0001)	1											
PA	37.85 (8.39)	−0.39 (0.0001)	−0.38 (0.0001)	1										
A	7.96 (3.98)	0.15 (0.06)	0.008 (0.91)	−0.04 (0.64)	1									
B	7.88 (4.18)	0.08 (0.001)	−0.003 (0.97)	−0.06 (0.45)	0.68 (0.0001)	1								
C	8.70 (2.88)	0.14 (0.002)	−0.04 (0.57)	−0.06 (0.42)	0.50 (0.0001)	0.46 (0.0001)	1							
D	5.50 (5.27)	0.12 (0.11)	0.01 (0.86)	0.07 (0.35)	0.62 (0.0001)	0.64 (0.0001)	0.50 (0.001)	1						
GHQ	30.04 (13.57)	0.15 (0.06)	−0.008 (0.92)	−0.01 (0.86)	0.85 (0.0001)	0.85 (0.0001)	0.70 (0.0001)	0.87 (0.0001)	1					
PSS	21.30 (5.94)	0.007 (0.93)	0.13 (0.10)	−0.05 (0.54)	−0.16 (0.003)	−0.12 (0.12)	−0.01 (0.86)	−0.04 (0.64)	−0.10 (0.19)	1				
FRQ	67.19 (6.98)	−0.04 (0.57)	−0.003 (0.97)	−0.06 (0.41)	−0.07 (0.36)	−0.05 (0.56)	−0.03 (0.66)	−0.11 (0.14)	−0.07 (0.35)	−0.05 (0.0004)	1			
PFC	1.51 (0.51)	−0.10 (0.18)	−0.16 (0.07)	0.07 (0.40)	−0.16 (0.004)	−0.20 (0.0002)	−0.25 (0.0002)	−0.25 (0.003)	−0.26 (0.0005)	0.02 (0.81)	−0.07 (0.37)	1		
EFC	1.28 (0.36)	0.04 (0.62)	0.03 (0.73)	0.01 (0.91)	0.12 (0.13)	0.10 (0.18)	0.06 (0.43)	0.21 (0.002)	0.16 (0.0006)	−0.07 (0.39)	−0.10 (0.19)	0.26 (0.0004)	1	
AC	1.09 (0.45)	0.13 (0.004)	0.10 (0.0002)	0.03 (0.66)	0.44 (0.0001)	0.52 (0.0001)	0.42 (0.0001)	0.65 (0.0001)	0.63 (0.0001)	0.003 (0.97)	−0.06 (0.44)	−0.12 (0.13)	0.37 (0.0003)	1

M: Mean; SD: Standard deviation; EE: Emotional exhaustion; DP: Depersonalization; PA: Personal accomplishment; A: Somatic symptoms; B: Anxiety; C: Social dysfunction; D: Depression GHQ: Total score of the General Health Questionnaire; PSS: Total score of the Perceived Stress Scale; FRQ: Total score of the Font–Roja Questionnaire; PFC: Problem-focused coping; EFC Emotion-focused coping; AC: Avoidance coping; CC: Correlation coefficient.

Figure 3 – Structural relationship model between job stress, burnout, and job satisfaction [11]

Sodeify et al. [12] have a slightly different perspective. Their study on Iranian nurses examined the influence of organizational injustice, such as inequitable resource allocation or limited access to promotions, on job satisfaction and stress. Their study found that organizational injustice contributed to lower job satisfaction and greater perceived stress. They found that organizational justice influences nurses' satisfaction both in material form (salary) and feeling valued and treated fairly by the organization. The absence of organizational justice leads to emotional exhaustion and intent to quit. Al Maqbali et al. [13] added to the discussion by studying Omani nurses' satisfaction in both routine and emergency care. They found that nurses with moderate levels of stress and having positive engagement with their patients, regardless of task ambiguity, reported acceptable satisfaction scores. In contrast, chronic stress, or stress combined with task ambiguity, contributed to declining satisfaction scores. The study concluded that moderate stress levels do not always translate to a level of dissatisfaction; however, ongoing but unresolved stress will negatively influence job satisfaction.

Cheng et al. [14] studied the relationship between job stress, commitment, and satisfaction in

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Taiwanese nurses. Their analysis noted differences between nurses who exhibited high organizational commitment and those nurses who did not. It was noted that although all nurses exhibited the same level of workload stress and strain, those with high organizational commitment exhibited a level of resilience and even reported higher satisfaction levels. The Wuhan review found that organizational commitment may protect you from negative job stress when the organization's commitment and values aligned with your own beliefs. In an additional study on emergency department nurses in South Korea, Park and Kim [15] found that lack of emotional support and professional recognition contributed significantly to job dissatisfaction. Everday emergency nurses are thrust into real-world inpactful situations. Such frameworks suggest that depersonalization and dissatisfaction are common experiences in the absence of formal evaluation or recognition from direct supervisor. Structured debriefings and peer acknowledgment were also noted to correlate positively with satisfaction.

In conclusion these reports and considered as an aggregate support that job satisfaction is more than the absence of stress and must be considered how stress is managed, how well you are supported or within a sufficiently structured accountable context, either recognize depersonalization or foster it. Institutions influenced by personal representations of fair evaluation, recognition, communication, and psychological safety will lead to more satisfied and resilient nursing staff. Unmanaged job stress, lack of recognition, and negative working environments correlate with dissatisfied, absent, and departed staff. The interplay between stress and satisfaction sets the stage for examining the consequences when stress goes unchecked.

1.4 Consequences of Unchecked Stress

If unaddressed, occupational stress in nursing can have a range of negative outcomes, from decreased physical and mental health of nurses to a tangible decrease in the quality of care and quality of workplace functionality. Occupational stress does not require nurses to leave their jobs but it can lead nurses to and potentially manifest in elusive, dangerous ways including decreased attention, decreased empathy, and/or decreased clinical judgement. In a 2018 cross-sectional study by Chatzigianni et al. [8] with nurses working in Greek public hospitals, occupational stress and job dissatisfaction are directly related. The authors also pointed out that

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the nurses they studied who reported being stressed out, also frequently reported emotional exhaustion, along with depersonalization, two key components of burnout. In addition to affecting nurses' purpose, burnout can increase the risk for medical errors, since emotionally exhausted and burnt-out nurses may be more apt to become detached and disengaged with their patients' needs.

In another study, Tran et al. [7] studied clinical nurses in Vietnam. They found a strong association between high job stress levels and anxious, depressive, and sleep disturbance symptoms. The implications rose above the professional level. A number of nurses indicated that they withdrew socially and reported family relationship issues. The psychological impact was especially prevalent in night shift nurses and emergency ward nurses, with patients having the greatest demands.

Category	Depression	Anxiety	Stress
Normal	0–9	0–7	0–14
Mild	10–13	8–9	15–18
Moderate	14–20	10–14	19–25
Severe	21–27	15–19	26–33
Extremely severe	28+	20+	34+

Figure 4 Depression, Anxiety, and Stress levels among clinical nurses [17]

The implications of these findings reveal that uncontrolled stress not only harms the health of nursing professionals, but it threatens the integrity and functionality of health delivery systems. In order to end this cycle of strain and its collateral damage, we need timely interventions and systemic change; we cannot afford to neglect either.

1.5 Need for an Updated Review

While decades of research in nursing has examined the causes and effects of occupational stress, there continues to be significant evidence gaps related to occupational stress on a global scale—most notably how stress varies across healthcare systems, cultural contexts, and nursing roles. Furthermore, evidence often pertains to particular regions, occur over shorter

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time frames, and lack an understanding of the depth or complexity needed to plan for adaptive policy and evidence-informed interventions. Taken together, the rapidly changing landscape of healthcare technologies, staffing and practice systems, and consumer expectations creates a need to examine this field in nursing anew, holistically. Singh et al. [6], in their mixed-methods systematic review of nurse academics, have provided some important direction about occupational stress as an educational and supervisory experience rather than being limited to clinical roles. They uncovered a gap in knowledge regarding the experience of stress faced by nurse educators, as nurse educators are also burdened with administrative, instructional, and research roles, with little perceived assistance or workload equity when balancing roles. This underreported group shows how limited the existing stress-research literature is and how it continues to limit our understanding of occupational stress.

In their cross-sectional study, Kim and Kang [5] suggested that many of the stress reduction strategies utilized in hospital environments lack standardization and do not adequately take into account the cultural issues that contribute to stress. While investigating the use of visual media therapy for stress management, they found that while short-term strategies may show positive impacts, and temporary modifications are useful, we do not know how effective the strategies would be over time or helped in terms of context. This demonstrates an even larger issue – interventions are implemented without longitudinal benefit and cultural context. Lastly, Lan et al. [4] pointed to methodological inconsistencies in the stress literature. Their work studying organizational climate and job stress found that many organizations, even when using validated instrumentation (e.g. Job Stress Scale, Maslach Burnout Inventory), interpreted findings differently, making meta-analyses impossible. Additionally, few studies have considered a truly multivariate perspective that accounts for individual, institutional, and societal variations. The authors argue the need for a standardized framework for better comparative analyses, and synthesis of evidence.

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	Burnout	Work–life balance	Workload issues	Resources & support	Job satisfaction	Age	Adapting to change	Resilience
Bittner and O'Connor (2012)			✓	✓	✓			
Gwyn (2011)				✓	✓			
Kizilci et al. (2012)	✓					✓		
Roughton (2013)		✓	✓	✓	✓			
Smeltzer et al. (2015)		✓	✓		✓			
Sarmiento et al. (2004)	✓		✓	✓	✓			
Tourangeau et al. (2013)		✓		✓	✓			
Yedidia et al. (2014)	✓	✓	✓	✓		✓		
Yildrim and Cam (2012)					✓			✓
Wang and Liesveld (2015)				✓	✓			
Westphal et al. (2016)		✓			✓			
Logan et al. (2015)				✓			✓	
McAllister et al. (2010)			✓	✓			✓	
McDermid et al. (2016)				✓				✓
Peters et al (2014)			✓	✓				
Wieland and Beitz (2015)			✓	✓	✓			✓
Wylie et al. (2016)				✓			✓	✓

Figure 5: Conceptual gaps in occupational stress literature among nurses [4]

To close these gaps, this review has outlined a systematic process to identify, evaluate and synthesise worldwide evidence on nursing stress, as outlined here. Longitudinal research, culturally relevant evaluation of interventions, and assessing multiple role stressors are urgently required to help policy and practice.

2. Methodology

This review utilizes a systematic approach to systematically identify, screen, assess and summarize empirical evidence on job-related stress among nurses. This approach is informed by established review methodologies, including PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), and is focused on a thematic analysis to draw attention to trends, patterns and gaps found in the literature.

2.1 Search Strategy and Databases

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To enhance the robustness and scientific integrity of this critical review, a systematic and structured literature search was undertaken across multiple high-quality electronic research databases. The identified databases of PubMed, Scopus, ScienceDirect, and Google Scholar which are well accepted for, peer-reviewed published literature and academic rigor. In part, the databases were selected to allow for an expansive search of literature around occupational stress of nurses across healthcare environments, locations and method. The review identified and limited articles is to publications in English, published in the date range of January 2015 through December 2023. Keeping the review recent, ensures that identified outcomes and discussions of occupational stress are relevant to contemporary healthcare practices and work environments.

Strategies to search for literature included controlled vocabulary identified specific to the topic (e.g., MeSH terms), followed by free-text keywords to improve the returning literature. Boolean operators were additionally used to limit the search area and increase accuracy. The search terms used were: “nurse” AND “job stress,” “occupational stress” AND “nurses,” “nursing burnout” OR “nursing workload,” and “nurse mental health” AND “job satisfaction.” Related terms such as "workplace stress" AND "healthcare workers" and "nurses coping strategies" were also used to search any potentially missed relevant or related studies.

It was recognized that a keyword-based search would not achieve a greater search horizon beyond a single algorithm. As such a reference chaining (or citation mining) approach would be applied. We reviewed the reference lists of high-quality studies we had already discovered (e.g., Singh et al. [6] and Lan et al. [4]) to locate additional studies that may not have otherwise crossed our path within the search databases. Although this labour-intensive (manual) step has proven to be effective when uncovering articles in under-served contexts or smaller qualitative studies—where you may uncover rich, contextual detail about experience of stress. The search process provided us with access to no fewer than three separate one-time "search events". In each of the three studies, we converted our previous keywords and database filter settings into additional changes in the form of an iterative series of events, as required by various indexing systems. For example, Scopus tends to expose the user to broader interdisciplinary research documents, while PubMed proposed a richer dataset of clinically-based studies. Their distinctions were altogether regarded and explored, in a way where balance could be struck between robust empirical and theoretical information reporting.

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Overall, the search strategy of this review was comprehensive and systematically implemented across a range of databases using clear search parameters. The search strategy was enhanced through additional reference mining and an iterative refinement of keywords, ensuring that the final selection of articles represents a solid and robust range of literature relevant to the topic of workplace stress in nursing.

2.2 Inclusion and Exclusion Criteria

To guarantee the pertinence, quality, and focus of the articles incorporated into this review, inclusion and exclusion criteria were defined. These criteria provided guidance when screening articles that were revealed through the search strategy. Empirical research studies were targeted through this review, specifically studies that investigated occupational or job- related stress during nurses practice, with registered or clinical nurses as the study population. Only Peer-reviewed articles published between 2015 and 2023 in English were included in the review, providing credibility regarding methodology and to avoid studies that were published in outdated literature. Articles were eligible if they employed quantitative, qualitative, or mixed-methods research design and included measurable aspects related to sources of stress, psychological or physiologic effects of stress, burnout, job dissatisfaction or turnover intentions, or coping strategies for nursing populations. Further, articles that included interventions designed to reduce stress or mental health of nurses were also included, including studies by Kim and Kang [5] who evaluated the effectiveness of visual media programs on stress alleviation, and Lan et al. [4], which studied extent to which organizational climate affected: stress and job commitment. Although not indicative of the causes of stress, these studies offered valuable insights about aspects of stress in the occupational health of nurses, as well as the potential for reducing stress.

To achieve the specificity of the review, various types of studies were also excluded. Studies concerning healthcare professional types and persons including physician, technician, and nursing students, were excluded unless separate data could be extracted and summarized by registered nurses. Editorials, opinions, conference abstracts, or non-empirical commentaries without original data or methodology were also excluded. Studies which discussed stress as a secondary outcome market among other outcomes and without a specific analysis or reporting of stress were also filtered out. The other significant exclusion criteria included methodological uncertainty or incompleteness. During full-text review, studies without clarity in sample

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selection, data collection methods, or statistical treatment were excluded. This was consistent with the method quality assurance approach, outlined by Singh et al., who recommended using only well-documented and ethically appropriate studies in reviews of this type. Through these criteria applied in a uniform manner, we were able to extract a rich and varied yet methodologically sound portfolio of studies which ultimately provide some benefit of a multi-faceted comprehension of Stresses within Nursing across global health contexts.

2.3 Article Identification and Screening Process

This review's article identification and selection process adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework to maximize the transparency and replicability of the study; hence, allowing for replication of this study in future reviews. The process proceeded in several steps and included the following four phases: identification, screening, eligibility, and final inclusion. Each phase aided in the process of reducing the search results from an original pool of articles to a defined pool of research empirical studies that met the defined inclusion criteria. In the identification phase, the search strategies presented in Section 2.1, yielded 120 articles from the selected databases. After eliminating duplicates, there remained 92 unique records (i.e., articles). Next, the titles and abstracts were screened for relevance to the themes of nursing stress, burnout, and job satisfaction. The screening phase led to 44 articles being discarded for irrelevance or mismatching of their abstract--in many instances, the authors or articles addresses physicians, non-healthcare sectors, or stress.

The next step was to assess 48 full text articles for eligibility. At this point, 30 studies were excluded for a variety of reasons including not having any methodological detail, not providing stress-related outcomes, and not being focused specifically on nurses. For example, one article recovered from the search reviewed organizational resilience for healthcare as a whole, but did not present any nursing-specific data. There were 18 articles that successfully met all inclusion criteria and were rated methodologically sound for this review. The included studies spanned a variety of countries and clinical contexts to provide global and comprehensive perspectives. Of the new included studies, Amanda et al [9] provided a strong example of quantitative methodology to explore the effects of compensation structures on job satisfaction and perceived stress. The inclusion of Amanda et al [9] also highlights the continuum between economic and

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policy-level factors in the discussion of nurse wellbeing. Friganović et al [16] were also a valuable study to include on how burnout and shiftwork interact with unsuccessful substance use, a less frequently stated consequence of occupational. The entire selection process is illustrated in the flow diagram below.

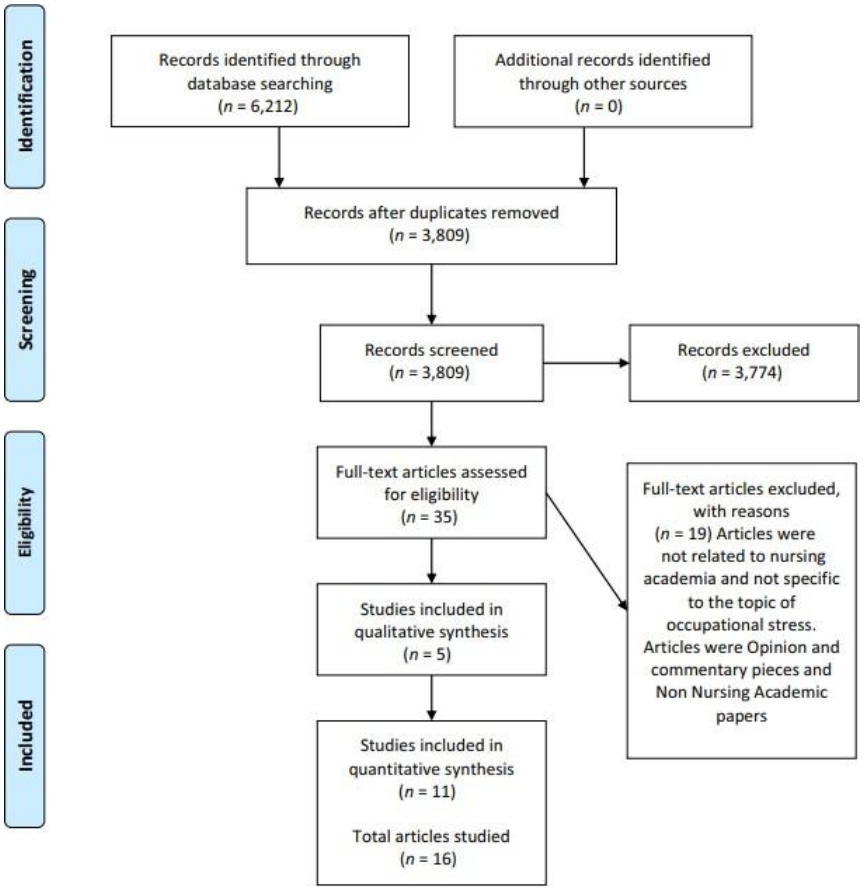

Figure 6 PRISMA Flowchart Showing Identification, Screening, and Inclusion Process [16]

The formal and systematic screening process assured that the articles selected to be included in the review were not only relevant but also methodologically strong and representative of different geographic and clinical contexts. The screening also lends itself to reproducibility for this review, while adding to future meta-analytical work.

2.4 Data Extraction and Analysis Framework

After all eligible studies were included, a systematic data extraction method was undertaken to foster uniformity and analytical rigor across studies. A data extraction matrix was developed

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for the study aspects that were to be extracted which included authors, year published, geographical location, study design, study population characteristics, sample size, measures of stress (e.g.: NSS, MBI), and major findings of the studies. At this point, the studies could be simaruacted and positioned for comparative analysis across different clinical and sociocultural contexts. Studies were also placed into themes or codes during the manual analysis and content analysis phases that allowed for both induction (emergent) and deduction (prescribed) theme construction. While previous coding within studies assisted with defining themes, themes were also organized into three broad dimensions of sources of stress, cognitive consequences of stress, and situational coping strategies or moderators of stress. For example, the study conducted by Almazan et al. [17] highlighted for example the cognitive consequences or impaired decision-making on cognitive load with Filipino nurses given study data from the Phlippines. While this data added richness to the "cognitive consequences" dimension because the clinical judgment errors were reported from the point of view of the primary study participants in real time.

Another important contribution is from Sodeify et al. [12], who investigated nurses lived experiences of organizational injustice in hospitals in Iran. Their qualitative study indicated how the inequitable treatment, lack of transparency, and unfair evaluation systems contributed to perceptions of stress and reduced job satisfaction. This research contributed to further shaping the "institutional stressors" subtheme of the "sources of stress" area theme. We engaged in thematic synthesis in a stepwise fashion, first categorizing findings with the three overarching areas of categories; then extracting sub-themes (e.g., shift patterns, emotional labour, supervisory support); and then noting how outcomes were associated with demographic / professional variables. In this way, it allowed some recognition of themes across both qualitative and quantitative patterns. For example, Khalid et al. [18] found that nurses exposed to high stress commonly used emotion-focused coping strategies including denial, avoidance, or over-commitment. Subsequently, this pattern of using particular emotion-focused coping strategies actually contributed to reinforcing their stress over time, showing the non-productive nature of unstructured coping.

The framework for data extraction and synthesis drew methodological inspiration from best practice in mixed-methods nursing reviews with the ability to merge contextual richness with empirical generalizability. Below is a visual representation of the extraction matrix.

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Variables	n	%
Gender		
Male	21	12.7
Female	143	87.3
Marital Status		
Single	69	42.07
Married	95	57.93
Education		
Bachelor's degree	146	89.024
Master's degree	18	10.976
Nationality		
Saudi	62	37.80
Filipino	35	21.34
Indian	64	39.02
Others (Sudanese, Egyptian, Jordanian)	3	1.83
Clinical Area		
Emergency Room	33	20.12
Outpatient Department	30	18.29
Medical and Surgical Department	32	19.51
Intensive Care Units	17	10.37
Operating Room	22	13.41
Obstetric Department	18	10.98
Artificial Kidney Unit	10	6.10
Nursing Administration	2	1.22
	Average	SD
Age	29.32	3.91
Working hours per week	44.14	4.03
Total years of experience as a nurse	7.29	6.0
Monthly gross salary (in SAR)	6,781	2,387.43

Figure 7 Summary Table of Thematic Domains and Study Distribution [17]

Using this uniform framework for a unique, universally sourced set of studies, this review offered evidence-based insights while keeping the reader fully aware of the structure and process used for organizing and interpreting the data.

2.5 Quality Appraisal and Ethical Considerations

To evaluate whether the studies included in this review had appropriate methodological rigour and trustworthiness, a systematic quality appraisal procedure was conducted. In terms of criteria, we used adapted criteria based on the Joanna Briggs Institute (JBI) critical appraisal checklists and principles of methodological rigour, as discussed in contemporary literature. In this appraisal process, each individual study was evaluated against a series of indicators such as clarity of research aims, appropriateness of research design, representativeness of sampling, transparency of data collection and analysis, and credibility of findings. Among the new studies included, Salem et a.l. [19] had a highly methodologically solid study, incorporating validated scales (DASS-21, Depression, Anxiety, and Stress Scale), clear sampling methods, and an excellent statistical plan. They were able to confirm the psychological consequences suffered by Egyptian

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nurses as a result of job stress, but also to serve as a strong example of good practice for survey research in the context of developing countries. GINK5L62 (Tran et al., 2019), also used structural equation modeling to explore the relationships among stress and anxiety and depression in Vietnamese nurses, and this method was conceptually sound and allowed for a rich analysis of related mental health outcomes.

To maximize objectivity, two reviewers assessed the quality of each study independently. The reviewers discussed discrepancies in order to reach an agreement. Studies were categorized as high, moderate, or low quality. Only high or moderate quality studies were included in the final synthesis; this process enhances the trustworthiness of the conclusions drawn in the current review. Privately, the review underwent ethical approval as per the regular academic procedure for secondary data analysis. The included study samples received ethical review and approval from an institutional review board or comparable ethical review body, as written in the methods sections for the included studies. For example, Thapa et al. [20] gained IRB approval for their Nepalese study that examined physical symptoms of job stress, and documented their attempts to protect confidentiality and voluntary nature of participating in their study.

In addition, the majority of included studies followed the principles of informed consent and data protection. This is very important in qualitative studies, more specifically Sodeify et al.[12] who undertook an in-depth interview study. Ethical clear reporting of data in the overall ethics of research practice and reflexivity in researcher-participant interaction enhanced the authenticity of these types of contribution. Having outlined the methodological context it is time to examine the theoretical approaches upon which this review will analyze nursing stress, starting with the Job Demand-Control model. This emphasis on methodological quality and ethical soundness has enhanced the integrity of the review as research and positioned it within the global evidence - based healthcare research

3. Theoretical Framework

Explaining occupational stress among nurses involves a theoretical framework which can clarify the structural and psychological mechanisms of stress. This review adopts an integrative perspective, using three of the most utilized models in occupational health research: the Job Demand-Control (JDC) Model, the Effort-Reward Imbalance (ERI) Model and the Transactional

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model of stress and coping. These models provide explanatory strength for interpreting the sources, responses and consequences of occupational stress within a nursing context.

3.1 Job Demand-Control (JDC) Model (Finalized)

The Job Demand-Control (JDC) model developed by Karasek is still one of the leading theories for understanding occupational stress, especially in the context of healthcare. The theory posits that job strain occurs when high job demands (e.g., workload, emotional labour) and low levels of authority and control aspects of the work context are combined (i.e., lack of control over how care is delivered). The Nursing profession has particularly complex and fast- paced responsibilities, so the JDC model offers a useful framework for understanding stress- related outcomes.

As part of their systematic review, Lu, Zhao and While [21] noted that nurses who operated under immense pressure with no control over their schedule, care protocols or the patients they were responsible for had lower satisfaction and greater burnout. Additionally, they synthesized evidence from multiple countries and clinical contexts, demonstrating those with greater control over the execution of work reported fewer negative psychological consequences even when they had a similar workload. Their research found that greater job autonomy, participative decision-making, and scheduling flexibility resulted in better mental health outcomes for nursing staff across each of the studies included in the review.

Beyond this experiment, Van Bogaert et al. [22] provided an additional study of Belgian hospital units, using a multilevel modeling approach. They found that high workloads with diminished unit-level control mechanisms predicted nurses' emotional exhaustion and depersonalization. They confirmed that low decision latitude exacerbated the adverse effects of demands, especially in units characterized by poor communication and absent leadership. Nurses in more optimal working environments—where shared governance, teamwork and collaboration were evident—demonstrated better resilience and endorsement of patient care, even during high demands. More support for the JDC model comes from Tuckey, Bakker, and Dollard's [23] discovery of the moderating influence of empowering leadership on stress within high demands roles. While sample beyond nursing, their recent multilevel study revealed, for leaders who empowered employee's autonomy and participation in decision-making processes, the adverse effects of

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workload on emotional exhaustion were significantly lowered. These findings were applicable to nursing units, who occupy hierarchically constraining disciplines, thereby limiting individual agency and increasing perceptions of stress.

	Unadjusted		Adjusted†	
	Slope	SE	Slope	SE
Emotional exhaustion‡				
Nurse–physician relations‡	−3·96***	0·67	−3·79***	0·68
Nurse management at the unit level‡	−8·45***	1·17	−8·65***	1·24
Hospital management & organisational support‡	−9·45***	1·12	−9·50***	1·16
Depersonalisation‡				
Nurse–physician relations‡	−1·31**	0·35	−1·09*	0·35
Nurse management at the unit level‡	−3·08***	0·63	−2·99***	0·66
Hospital management & organisational support‡	−3·93***	0·60	−3·99***	0·62
Personal accomplishment‡				
Nurse–physician relations‡	2·21***	0·48	1·98***	0·48
Nurse management at the unit level‡	4·26***	0·83	4·57***	0·87
Hospital management & organisational support‡	4·65***	0·82	5·08***	0·82

Figure 8 Conceptual Model: High Demands + Low Control = Job Strain [22]

In conjunction, these studies provide strong evidence to support the application of the JDC model in nursing environments. High demands are a part of a nurse's job description, and particularly in intensive care, the emergency room, and departments comprised entirely of agency staff. However, the demands placed on nurses become toxic stressors in the absence of autonomy, voice, or influence. Improving job control via participatory scheduling, decentralization of decision-making, and providing some leadership training can be one practical and research-supported way to reduce occupational stress for nurses.

3.2 Effort-Reward Imbalance (ERI) Model

Siegrist's Effort Reward Imbalance (ERI) model depicts work stress as a social exchange imbalance. When employees put forth persistent effort via emotional, physical, or mental labor and rewards such as recognition, salary or career advancement are not obtained, their stress rises. As nursing is a profession involving emotional labor, regular overtime, and heavy workloads, the ERI model is instrumental in understanding stress and burnout in nursing. Friganović et al. [16] conducted a notable study focusing on ICU nurses across Europe and showed that ICU nurses that experience a gap between effort and reward are significantly more likely to experience

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burnout and engage in maladaptive coping strategies such as substance use. Their work demonstrates the psychological cost of feeling under rewarded in high stress situations.

In Germany, Schulz et al. [24] compared medical and psychiatric ward nurses. They found that high ERI scores were strongly associated with levels of emotional exhaustion and depersonalization both of which are significant facets of burnout. Notably, the imbalance between effort and reward was a stronger predictor of burnout than the total workload highlighting the importance of the perception of reward in the stress experience of nurses. More recently Braun et al. [25] conducted a pilot study in an emergency department in Australia and found that nurses had increased burnout and turnover intent with increasing ERI ratios (i.e., indicator of imbalance). Their study also indicated that even small increases in recognition or experience of emotional support could positively moderate negative outcomes.

	Examined nurses ($n = 339$)	Under education ($n = 50$)	Statistics[1] t-test
Burnout			
Emotional exhaustion	22.2 (9.1)	23.0 (7.9)	$t_{df387} = 0.37$, n.s.
Lack of accomplishment	18.4 (7.6)	18.2 (7.3)	$t_{df387} = 0.84$, n.s.
Depersonalization	9.2 (4.6)	10.3 (5.0)	$t_{df387} = 0.15$, n.s.
Effort–reward			
Extrinsic effort	18.2 (4.4)	14.9 (3.8)	$t_{df386} = 4.95$, $P < 0.001$
Reward	43.2 (7.3)	45.8 (7.6)	$t_{df386} = -2.25$, $P = 0.025$
Monetary gratification	7.2 (2.2)	7.6 (2.6)	$t_{df386} = -1.35$, n.s.
Status control	15.0 (3.1)	16.1 (3.1)	$t_{df386} = -2.67$, $P = 0.007$
Esteem reward	21.3 (3.9)	22.1 (3.7)	$t_{df386} = -1.29$, n.s
Overcommitment	13.7 (2.7)	14.0 (2.3)	$t_{df386} = -0.75$, n.s.
Effort–reward imbalance score	0.8 (0.3)	0.6 (0.4)	$t_{df386} = 3.15$, $P = 0.002$

Figure 9 ERI Components and Burnout Outcomes in Nursing [24]

When considered all together, these studies show that ERI is more than a conceptual model and is an actual real-world predictor of nurse burnout and attrition, Different forms of reward dimensions; financial and social, or professional can be used strategically, on the balance of demands versus rewards in nursing and to encourage and sustain the nursing workforce.

3.3 Transactional Theory of Stress and Coping

The Transactional Theory of Stress and Coping, by Lazarus and Folkman (1984), viewed stress as a process of transaction emphasized the role of appraisal in stress and coping processes. The model consists of three constructs: primary appraisal (perceived threat or challenge), secondary appraisal (perceived coping capacity), and strategies employed to cope with the stressor (problem and emotion-focused strategies). Jameston et al. [26] evaluated Australian hospital nurses' coping in a transactional model study. The researchers found the use of problem-focused coping

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strategies, like prioritizing work tasks and peer support, led to lower mood disturbance and greater job satisfaction regardless of high work demand. The researchers also found that avoidance-based emotion-focused coping strategies led to more mood disturbance demonstrating the role of appraisals and coping strategy selection in moderating the impact of stressors.

Following the same line of thought, Angott et al. [27], in their qualitative study of nursing oncology ward nurses, found that where nurses appraised demanding clinical situations as "challenges within control," and used structured coping tools—structured reflection, or peer debriefing—they reported significantly less emotional exhaustion than their colleagues who reported being overwhelmed or used emotion-focused coping (e.g., withdrawal or emotional suppression) and consequently reported more distress and reduced professional accomplishment.

Scale	N	Mean	SD	Alpha	Relative scores
Nursing stress scale (0–120)	128	40·46	14·50	0·92	N/A
Sub-scales (item scores 0–3)					
Workload	128	1·61	0·88	0·91	
Uncertainty about treatment	128	1·27	0·87	0·89	
Conflict with physicians	128	1·24	0·88	0·91	
Death and dying	128	1·18	0·53	0·78	
Inadequate preparation	128	1·17	0·87	0·88	
Conflict with other nurses	128	1·04	0·93	0·89	
Lack of support	128	0·97	0·98	0·90	
Job satisfaction (5–20)	129	12·73	3·50	0·81	N/A
Profile of mood states (0–148)	129	46·92	21·73	0·91	N/A
Coping humour scale (7–28)	129	19·98	3·74	0·71	N/A
Ways of coping (item scores 0–3)					
Planful problem solving	125	1·37	0·69	0·77	20
Seeking social support	125	1·30	0·68	0·75	19
Self-controlling	125	1·07	0·58	0·66	15
Positive reappraisal	125	0·82	0·64	0·79	11
Confrontive coping	125	0·77	0·57	0·68	11
Distancing	125	0·70	0·56	0·72	09
Accepting responsibility	125	0·67	0·59	0·62	09
Escape-avoidance	125	0·49	0·43	0·63	07

Figure 10 Transactional Model in Nursing: Appraisal, Coping Pathways, and Outcomes [26]

Using these theoretical lenses, the next section considers the empirical realities of stress in nursing and discusses the major sources categorized into workload, interpersonal conflict, and role

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conflict. Interventions which raised awareness of coping styles, fostered peer support, and aimed at training reflective practice - related to a transactional theory - showed potential to reduce occupational stress. This theoretical lens indicated that both structural and personal support systems must be incorporated into any stress-reduction strategies available to nurses.

4. Sources of Stress in Nursing

Occupational stress in nursing is influenced by an intricate web of systemic, interpersonal, and individual-level factors. Understanding the sources of occupational stress is key to targeted interventions. Evidence from the literature suggests that core sources of stress can be divided into three categories: workload/staffing, interpersonal conflict/leadership, and role ambiguity/shifting work practices. As all sources of stress are typically inter-related, they compound stress and possibility for employee burnout and turnover.

4.1 Workload and Staffing Pressures

In nursing, excessive workload has been reported time and time again as a significant source of occupational stress, and influenced by staff shortage and increased patient acuity. Stress occurs when nurses are caring for too many patients or assigned non-care related work, and this stress can have implications on psychological strain and quality of care provided to patients. In a meta-analysis by Aiken et al. [28] it was found that increasing a nurse's patient load by 1 patient would lead to an increased risk of burnout, job dissatisfaction and turnover, about 7-8% per addition of a patient. This illustrates that the nurse-patient ratio is not simply an operational measure, but a determinant of wellbeing in the workforce. In a qualitative study conducted in Tehran, Iran, Khademi et al. [29] examined the notion of "resource-task imbalance," whereby nurses described having too many patients while also not having enough resources or people—all while 'doing' their tasks with ambiguities and contradictions to those resources. Resource-task imbalance was created through conditions that included staffing shortages, scope of practice shifts, and insufficient preparation and contributed to not only stress but to "perceptions of professional identity and workplace inefficacy."

Likewise, a cross-sectional study led by Lake et al. [30] among emergency department nurses in the USA, found that workload, measured as perceived workload, was positively and strongly associated with emotional exhaustion and burnout. More importantly, the study highlighted that

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the effect of workload on burnout was moderated by the perceived quality of the working environment, thus showing how much organizational factors can protect or enhance the impact of pressures of staffing. Taken together, these findings confirm that - in nursing, workload and understaffing are not incidental stressors - they are occupational hazards. Beyond workload pressures, interpersonal conflicts further compound stress, particularly in hierarchical healthcare environments.

4.2 Interpersonal Conflict and Leadership Gaps

Interpersonal conflict—whether among coworkers, supervisors, or between teams— represents a highly common and impactful source of stress in nursing. This type of conflict arises from a misunderstanding, hierarchical or status conflict, competition for limited resources or tasks, as well as lack of clarity. Failure to take action on conflict leads to diminished morale, collaboration, and emotional strain on staff. Kim et al.'s [31] meta-analysis revealed that interpersonal conflict was one of the highest sources of stress for nurses with limited job control. Their all-encompassing correlational analysis demonstrated significant positive relationship ($r \approx 0.05$) between interpersonal conflict and job stress. This study highlights the burden of relational conflict as a major systemic stressor in nursing settings.

Qualitative research by Silva et al. [32] from Brazil found that nurse leaders experience many challenges related to managing conflicts among their employees, interpersonal conflicts among employees themselves, and some resistances to their authority. Representative comments for the participants included: “There will always be someone who you are not going to please… you have to call this to their attention, and that's the worst”. These types of interactions not only create pressure on leaders, but they can foster disengagement among team members and low job satisfaction, exacerbating the conflicts.

A study from Switzerland conducted by Elfering A et al. [33] assessed the impact of conflicts with supervisors on the nurses' well-being and intent to leave. Their structural equation modeling showed that the conflicts reduced perceived supervisory support and participation in decisions, which increased the job strain of registered nurses and decreased their retention.

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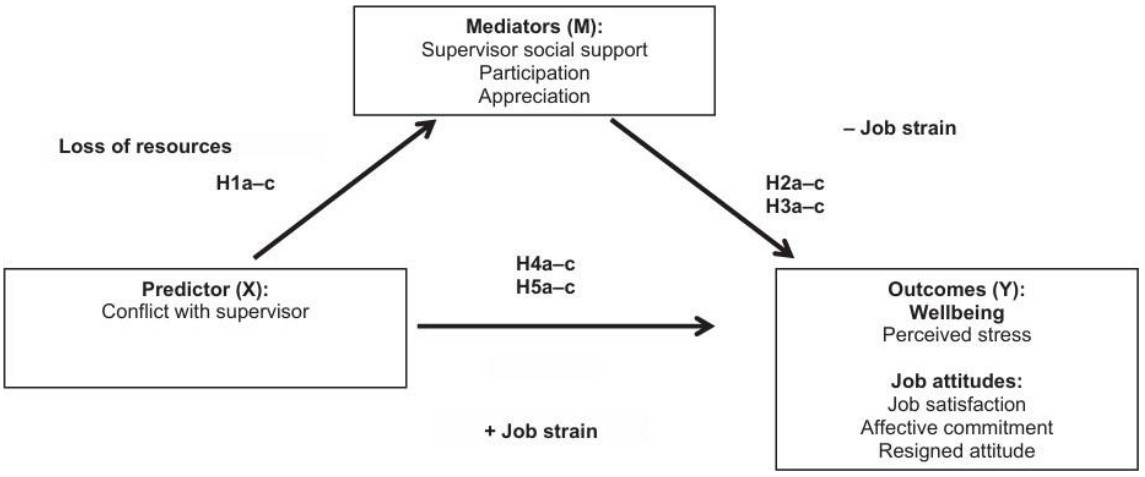

Figure 11 Model of Supervisor Conflict → Reduced Job Resources → Increased Stress and Turnover [33]

Disrespectful or dismissive communication, or conflictual communication, was associated with 50% higher intention to leave among nurses in acute care settings in a cross-sectional survey based in Hungary. This points out the impact of a breakdown in simple team communication on retention and well-being. There also factors in addition to relational stressors, working shift work and role ambiguity adds another layer of psychological stress.

4.3 Shift Work, Role Ambiguity, and Emotional Demands

It can be said that nursing is always emotionally demanding in nature. Nurses typically deal with inconsistent shift patterns, uncertainty about their role, and hearing about patient suffering all day long. These factors interact together, increasing the amount of cognitive load and psychological distress the nurse is under, that are not typically taken into account in institutional templates, but which have an impact on wellbeing. A multisite Swiss study by Dhaini et al. [34] involving 1833 nurses, demonstrated that combined, low control over work scheduling and low supervisor support were statistically significant to increased emotional exhaustion, those nurses with little input into their shift and frequent last-minute overtime were more depressed - irrespective of work-family conflict or clinical workload.

Siahaan et al. [35] took a structural equation modeling approach among 201 female shift nurses from an Indonesian perspective. The authors noted that role ambiguity – not having clear definitions of tasks, and overlapping roles – emerged as a notable mediator of workload and shift work sleep disorder, characterized as insomnia and fatigue. This finding emphasizes that

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structural ambiguity interacts with sleep disruption in shift work. In addition, a European, multicountry study looked at 12 hour shifts by Ball et al. [36]. This study found that length of shift (≥ 12 h) was related to higher levels of burnout, job dissatisfaction, and intent to leave. Specifically, veterinarians with longer shifts reported 26–44% increased likelihood of emotional exhaustion, reflecting the demands of longer working periods in nursing roles.

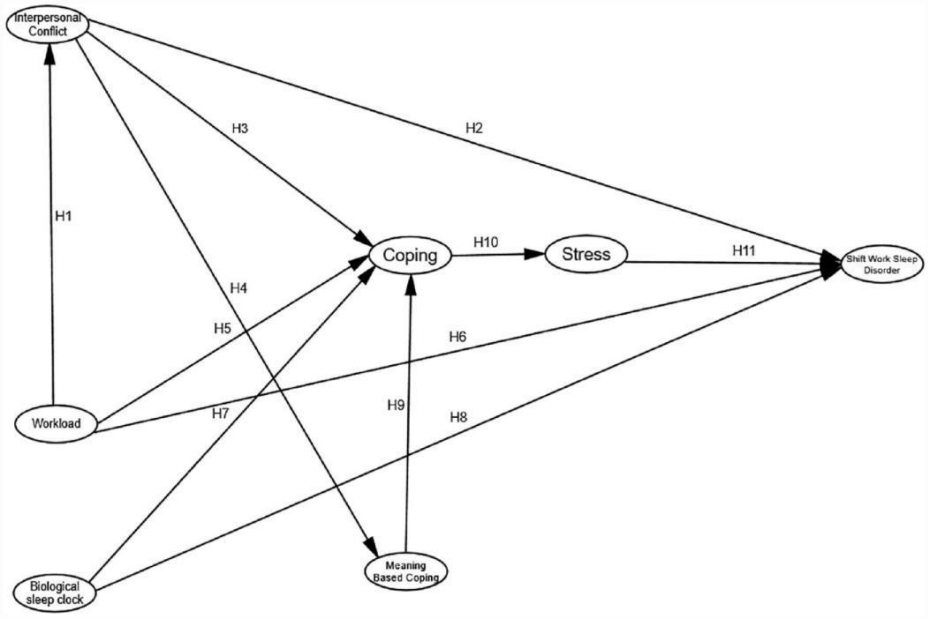

Figure 12 Conceptual Pathway: Low Schedule Control & Role Ambiguity → Exhaustion & Shift Work Disorder [35]

The stressors outlined above, whether systemic, interpersonal, or individual precipitate far-reaching consequences. We now analyze how unmitigated stress erodes nurse wellbeing, patient safety, and organizational stability.

5. Consequences of Stress in Nursing

Occupational stress in nursing results in serious effects not only for the individual, but also for patient safety, organizational viability, and quality of care. The following paragraphs identify these and include a sample of studies with notable impact.

5.1 Burnout and Turnover

Burnout is an important psychological consequence of nursing occupational stress, and one of

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the most consistently observed predictors of actual nurse turnover. It is considered emotional exhaustion, depersonalization, and diminished personal accomplishment. In a longitudinal study by Kelly, Gee, and Butler [37], they followed 1,688 direct-care nurses over a one-year period to better understand the correlation between burnout and turnover in the organization. They observed that 54% of nurses reported moderate to high levels of burnout. They also reported that with every one-point increase in emotional exhaustion (on a 0-6 point scale), there was an observed 12% increased risk of leaving the organization. This study supports that burnout is not simply an affective state—it can have real consequences for workforce stability and retention. This trend was also confirmed by national workforce reports. As an example, burned-out nurses are the most likely to consider leaving their jobs, with emotional exhaustion, feeling unappreciated, and pressure of their workload among the reasons identified. While the consequences of turnover are significant, beyond just staff shortages, the increased stress on replacement staff and diminished team dynamics can affect nursing teams for years to come. Ultimately, burnout is both a symptom and a causative agent of chronic organizational instability and requires system-level intervention.

Burnout's impact extends beyond turnover; it also directly compromises patient care quality, as evidenced below.

5.2 Patient Safety and Care Quality

Nurse burnout affects more than the workforce; it is directly tied to adverse patient safety and care outcomes. A systematic review and meta-analysis by Li et al. [38] included 85 studies with over 288,000 nurses showing strong correlations to nurse burnout and patient outcomes; the most reported effects were lower safety climate scores with increased patient falls, medication errors, hospital-acquired infections, and lower patient satisfaction scores. The review concluded that emotional exhaustion and depersonalization especially negatively affected a nurse's attentiveness to care, decision making, and emotional availability - all of which are essential to providing safe and compassionate care.

A study by Nantsupawat et al., [39] conducted in Thailand found a correlation that higher burnout scores were associated with increased 2.6 odds of poor ratings of care from nurses themselves. This indicates that burnout affects not just technical aspects of care, but also the perception of the

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quality of care. In instances when nurses are psychologically overtaxed, they have difficulty following protocols properly, advocating for patients' needs, and communicating compassionately with patients and families. This supports the argument that nurse burnout is not solely a workforce wellness issue, but a safety risk at the systems level. Therefore, prioritizing nurse wellness is essential for maintaining quality error-free care.

5.3 Organizational and Financial Impact

There are tremendous financial consequences with nurse burnout, especially with respect to turnover, but also for the direct costs it incurs. Tartaglia et al. [40] estimated costs associated with nurse burnout by using a Markov modeling technique to estimate the costs associated with burnout-related turnover. Their results revealed hospitals incur an average direct cost of USD 16,736 annually for each nurse that they lose as a result of burnout. Conversely, if the hospitals implemented effective burnout management interventions into their nursing units, they can reduce this cost to an average of approximately USD 11,592 per nurse (31% cost reduction).

Increasing turnover has costs beyond the most obvious direct expenses. Indirect costs include training and orientation costs, turnover costs associated with lower productivity and increased absenteeism, and reduced morale amongst staff. Additionally, high turnovers create disruptions within teams used to working together, result in increased patient-to-nurse ratios, and create onboarding lags that can affect patient delivery of care. From an administrative perspective, increasing turnover patterns contribute to operational challenges, put a strain on limited resources, and add to the stress of the remaining staff—all factors associated with burnout. Therefore, preventing burnout is not only an ethical obligation, but also an economic necessity. Changes in modifiable components of organizational risk factors (staffing ratios, leadership availability, and scheduling flexibility), can lead to significant saving and retention of the workforce.

5.4 Compounded Effects

Burnout leads to internal and external causal cycles that lead to additional cycles of damage caused by burnout within healthcare organizations. A nurse who is burned out will likely exhibit disengaged behavior in practice, or may even make clinical errors or miss work altogether. Each of these behaviors leads to decreased quality of care, a greater number of adverse events, and

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heavier burden on the remaining resource staff to make up for absences or work-related errors. When healthcare providers begin to put additional burden on the remaining staff, their stress increases, establishing an ongoing cycle of burnout, absenteeism, and staff turnover. The evident cyclical damage caused by burnout is described in literature noted in studies that link high emotional exhaustion on the job to high nurse-to-patient ratios. The higher patient ratios create greater risks of burnout while also increasing risk to patient satisfaction and overall quality of care. Over time, organizations could experience not only turnover but also a loss of institutional knowledge and morale, which unless addressed with a systematic plan will diminish employee capacity to recover.

Additionally, organizations with high turnover have a tendency to compromise on hiring process and/or cut corners on orientation and training, which potentiate performance declines. If no course of action is taken, this has the potential to damage the healthcare organization in ways that extend beyond deficits in clinical care delivery including reputational damage, deteriorating trust in the organization, and overall sustainability of practice. The following section considers evidence-based strategies at the organizational, team, and individual level with the expectation that it will create an opportunity to intervene and combat the accelerating, and pervasive, cycle of burnout.

6. Strategies to Mitigate Stress in Nursing

In order to successfully fight against the stress felt by nurses, we must develop efforts at the organizational, team, and individual levels. Evidence exists for combining structural approaches (organizational changes) with individual resilience techniques.

6.1 Organizational-Level Interventions

Sustainably managing job-related stress points to the need for systemic changes at the organisational level. One way to do this is to create a positive psychosocial safety climate (PSC): the extent to which employees collectively believe that management cares about their psycho-social health and safety. Dollard, Tuckey and Dormann [41] found that healthcare units with a higher PSC, expressed at a unit level, were associated with significantly less burnout of nurses and fewer adverse events. They also found that PSC had an effect of insulating against the adverse effects of bullying and harassment, in part confirming Dollard's model and establishing

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it as an important upstream indicator of workplace mental health. Another way to address job stress is to create self-scheduling systems. In a recent European pilot study, Uhde et al. [42] implemented a system in which nurses had a digital platform and could create their own shifts and swap shifts with each other. Over a nine-month study, participants reported better work–life balance, less stress, and improved cohesion among colleagues; these outcomes illustrate how even small increases in autonomy can lead to significant reductions in psychological strain.

Good leadership development contributes to resilience in organizations. Transformational leadership and emotional intelligence build trust and reduce stress levels. Dollard et al. showed that leaders who cared about the well-being of their employees—by being transparent, fair, and recognizing the contributions of their employees—helped to reduce emotional exhaustion and turnover. These forms of interventions come together and make up PSC enhancements. The other aspect here is to recognize that it is important to have a system of support, in addition to individual level interventions. As a whole, these organizational strategies, or at least somewhat based around, organizations—policy-based PSC, scheduling autonomy, and leadership training—have interventions that reduce and prevent stress as a primary stressor. The greatest part is that these interventions may be repeated and sustained, while also improving the health and well-being of staff, improved staff retention, and better quality of care delivered to patients.

6.2 Team-Based Communication and Cohesion Programs

Advancing teamwork practice through improved communication and simulation-based training is another powerful approach. SBAR (Situation Background Assessment Recommendation) type of tools facilitate more clear, concise, and psychologically safe communication with nurses and other professionals. Müller et al. conducted a systematic review [43] on SBAR training utilizing multiple RCTs. They reported positive impacts with all studies showing participant improvements in communication clarity, role recognition, and confidence – all mediating factors contributing to stress in high stakes situations and handover. In a similar vein, Farahbakhsh et al. [44] recommended, significant improvements in emotional exhaustion and depersonalization, and self-reported job satisfaction improved within four weeks of an intervention with Iranian nurses focused on interpersonal communications. Structured debriefings/peer-support models in

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high stress ward settings demonstrate strong effects. Rees et al. [45] concluded that in ICU and ED staff peer-support models improve psychological safety and decrease distress, Soft and hard debriefings allow staff an avenue to process emotionally, validate experiences, and understand peer experiences – all buffering stress impact in emotional work space.

In conclusion, interventions targeting communication and cohesion at a team level are cost-effective ways of developing resilience through enhanced protocols, emotional support and mutual responsibility. These interventions can work in conjunction with organizational approaches to develop psychologically safe clinical teams.

6.3 Individual-Level and Psychological Resilience Strategies

Given widespread systemic changes, we remain confident that nurses have both opportunities and tools to support their personal resilience. However, it is worth mentioning that mindfulness-based interventions (MBIs) continue to provide one of the strongest lines of evidence for reduced stress and burnout. Using a meta-analysis of randomized controlled trials (RCTs), Wang et al. [46] reported moderate effects for stress (standard mean difference (SMD) = -0.81) and large reductions in emotional exhaustion (SMD = -4.27) and depersonalization (SMD = -2.89) for nurses. Effects were evident immediately post and maintained at three months post. For a subset of nurses in the ICU setting, Liang et al. [47] found medium-term changes in anxiety, stress, sleep, resilience, and burnout outcomes after a mindfulness-based intervention applied to a cohort of nurses. This meta-analysis supported that while immediate gain was possible in stressful environments, sustained gain was generally possible as well.

Jiang et al. [48] conducted a meta-analysis for published RCTs including 16 RCTs, and reported moderate effects for stress (SMD -0.50) and depression (-0.42) outcomes. Length of the intervention also mattered; longer interventions (8 weeks) were more effective than shorter, most of which were not longer than 8 weeks. Overall, this body of evidence supports MBIs (delivered via in-person or digital) are likely to produce moderate-to-large benefits for emotional exhaustion, and these benefits were sustained over at least several month period.

Given these evidence-based interventions, we finish with tailored recommendations for policymakers, health care organizations, and future research to promote stress reduction in

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nursing practice.

7. Recommendations and Future Directions

7.1 Organizational-Level Strategies

Healthcare organizations should develop a psychosocial safety climate (PSC) – which involves an environment that promotes psychological health and takes proactive measures to manage psychosocial risks. Dollard, Tuckey, & Dormann (2015) found that in workplaces identified as having high PSC, nurses reported significantly lower burnout levels and greater job satisfaction when confronted with workplace stressors. To develop PSC, organizations should have obvious two-way communication mechanisms, include frontline staff in the decision- making process, and hold leaders accountable for incorporating psychological well-being into health care delivery. Self-scheduling systems are one way to relieve stress in nursing because they allow nurses to control their hours in the workplace. Uhde et al. (2021) found in a pilot study in Europe that nurses who were given a digital platform to set and swap shifts reported a higher work-life balance, decreased burnout, and increased team cohesion over nine months. Incorporating self-scheduling systems (or other autonomy-enhancing tools) into their staffing policies gives nursing teams more control of their work environments and promotes retention.

Leadership development is equally as important. Opie et al. [49], found that when nurse leaders were trained in emotional intelligence and transformational leadership, the staff in their units had increased resilience, job satisfaction, and decreased turnover . Embedded leadership development opportunities that include training on PSC in nurse leaders' professional development plans is an important part of the process to reduce system-wide stress.

7.2 Team-Level Communication & Cohesion

Structured communication protocols, such as SBAR (Situation–Background–Assessment–Recommendation), improve clarity, decrease miscommunication. Müller et al. (2018) synthesized SBAR training interventions in critical care, reporting improvements in handover quality, clarity of roles, and confidence—contributing factors related to decreased stress in

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critical care contexts. Relatedly, peer-support interventions provide evidence of similarly potent motivation. Farahbakhsh et al. (2016) reported on an intervention providing communication skills training for hospital nurses in Iran, resulting in decreased emotional exhaustion and depersonalization just four weeks post-intervention. In more immedate high- stress environments like ICU units, structured debriefs and peer support circles can be protective, improving resilience through shared experience, reflection and emotional reassurance. Integrating structured communication interventions and peer-support interventions into routine clinical practice reminds clinicians about the importance of mutual support and psychological safety conditions, which are critical to reduce stress and enhance team performance.

7.3 Individual-Level Resilience & Wellness

Many individual resiliency-building programs including mindfulness-based stress reduction programs (MBSR) have had a positive effect. For example, Wang, L., et al [50] systematically reviewed and meta-analyzed 15 RCTs, reporting that MBSR produced lower levels of stress (SMD = –0.81), less emotional exhaustion (SMD = –4.27), and lower depersonalization (SMD = –2.89), for up to 3 months after the last session.

Pascoe, Hetrick, & Parker [51] conducted a network meta-analysis of interventions that aimed at building resiliency, including CBT, emotional intelligence, and anger management programs, and reported that MBSR and CBT emerged as two of the most effective resiliency strategies. These programs aim to help participants improve their coping skills, emotion regulation ability, and cognitive resiliency. To help participants maintain these benefits over time, it is important make the programs more accessible (e.g. online/one off workshops) and provide "booster" sessions.

7.4 Future Research and Innovation

Future research should emphasize on:

1. Longitudinal studies (6–12 months) to assess sustainability of benefits from the interventions; Implementation trials that encompass organizational, team, and individual levels;
2. Technology solutions for real-time support (e.g., AI algorithm, stress-detection sensors);

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3. LMIC-specific studies that consider cultural adaptation and resource limitations in the interventions;
4. Cost-benefit analysis by calculating savings from reduced burnout and turnover, in order to build evidence for policy change.

Conclusion

The review correctly highlights the following key findings:

- Job stress in nursing is a universal, systemic problem stemming from a set of factors such as high job demands, lack of supervisor and organizational support, poor role clarity, and interpersonal conflict.
- Burnout and turnover are direct manifestations of chronic stress in nursing and have significant implications for patient safety and monetary costs for health care systems.
- Increased stress leads to declines in quality of care, affecting empathy, attention, and clinical reasoning - thus, causing increases in errors and patient dissatisfaction.
- From an organizational perspective, interventions (psychosocial safety climate, flexible working arrangements, leadership capabilities) are effective approaches to reducing stress and increasing retention of nurses.
- From a team-based perspective, interventions (structured communication protocols, debriefings, peer support) improved psychological safety and reduced stress levels when working in high stakes environments.
- From an individual perspective, mindfulness and resilience programs have proven to be effective approaches to reducing emotional exhaustion and enhancing well-being.
- Future research should attend to greater attention to longitudinal, culturally-sensitive work, and implementation science research approaches to evaluate interventions across various healthcare contexts.
- An integrated, multi-level approach to sustainably address stress in nursing is needed to improve workforce well-being (such as better mental health) that benefits care quality and organizational resilience in health systems.

References

[1] Chakraborty, B., Trivedi, K., & Kumar, K. (2023). *Impact of Using Mobile Applications on the Psychological Well-being of Nurses: A Cross-Sectional Study in India*. The Malaysian Journal of Nursing (MJN). DOI: 10.31674/mjn.2023.v15i02.016

[2] Kaburi, B. B., Bio, F. Y., & Kubio, C. (2019). *Psychological Working Conditions and Predictors of Stress Among Nurses in Upper East Region of Ghana*. Pan African Medical Journal. Link

[3] Kim, H., & Kim, E. G. (2021). *A Meta-analysis on Predictors of Turnover Intention Among Hospital Nurses*. Nursing Open. DOI: 10.1002/nop2.872

[4] Lan, Y.-L., Huang, W.-T., Kao, C.-L., & Wang, Y.-C. (2020). *The Relationship Between Organizational Climate, Organizational Commitment, and Job Stress Among Nurses*. Journal of Occupational Health. DOI: 10.1002/1348-9585.12079

[5] Kim, H.-G., & Kang, H.-S. (2019). *Effects of Visual Media Programs on Job Stress Reduction in Nurses*. International Journal of Advanced Culture Technology. DOI: 10.17703/IJACT.2019.7.4.32

[6] Singh, C., Cross, W., Munro, I., & Jackson, D. (2020). *Occupational stress facing nurse academics—A mixed-methods systematic review*. Journal of Clinical Nursing. DOI: 10.1111/jocn.15150

[7] Tran, T. T. T., Nguyen, N. B., Luong, M. A., & Nguyen, H. T. T. (2019). *Stress, anxiety and depression in clinical nurses in Vietnam: A cross-sectional survey and structural model*. International Journal of Mental Health Systems. DOI: 10.1186/s13033-018-0257-4

[8] Chatzigianni, D., Tsounis, A., Markopoulos, N., Sarafis, P., & Kallergis, G. (2018). *Occupational stress experienced by nurses working in Greek public hospitals*. Iranian Journal of Nursing and Midwifery Research. DOI: 10.4103/ijnmr.IJNMR_120_17

[9] Amanda, N., Anindita, R., & Hilmy, M. R. (2021). *Compensation, Job Stress, and Job Satisfaction of Nurses: A Case Study at a Private Hospital in Indonesia*. Jurnal Manajemen Kesehatan Indonesia. DOI: 10.14710/jmki.9.1.2021.38-44

[10] Gu, B., Tan, Q., & Zhao, S. (2019). *The association between occupational stress and sleep quality among Chinese nurses: A cross-sectional study*. Medicine. DOI: 10.1097/MD.0000000000015836

[11] Portero de la Cruz, S., & Cebrino, J. (2020). *A Multicenter Study into Burnout, Perceived*

Stress, Job Satisfaction, Coping Strategies and General Health among Emergency Nurses. Journal of Clinical Medicine. DOI: 10.3390/jcm9041007

[12] Sodeify, R., Mohammadi, E., & Abedi, H. (2013). *A qualitative study of nurse's experiences of organizational injustice*. Iranian Journal of Nursing and Midwifery Research. DOI: 10.4103/1735-9066.114712

[13] Al Maqbali, M. A., Al Sinani, M. A., & Al-Lawati, H. (2020). *Prevalence of job satisfaction among nurses in a tertiary public hospital in Oman*. International Journal of Nursing Sciences. DOI: 10.1016/j.ijnss.2020.07.003

[14] Cheng, C.-Y., Liou, S.-R., Tsai, H.-M., & Chang, C.-H. (2015). *Job stress and satisfaction among nurses in intensive care units: The moderating effect of organizational commitment*. Journal of Nursing Research. DOI: 10.1097/jnr.0000000000000080

[15] Park, J., & Kim, T. H. (2019). *The effects of supervisor support and organizational commitment on job satisfaction among emergency nurses in South Korea*. International Emergency Nursing. DOI: 10.1016/j.ienj.2019.100778

[16] Friganović, A., Selič, P., & Ilić, B. (2020). *Substance Use and Burnout Among ICU Nurses: A European Perspective*. International Nursing Review.

[17] Almazan, J. U., Albougami, A., & Alamri, M. (2019). *Exploring the Influence of Occupational Stress on Clinical Decision-Making in Filipino Nurses*. Journal of Taibah University Medical Sciences. DOI: 10.1016/j.jtumed.2019.01.006

[18] Khalid, S., Irshad, M., & Mahmood, Q. (2020). *Occupational Stress and Coping Behaviors Among Nurses in Pakistan: Implications for Training and Mental Health Support*. BMC Nursing. DOI: 10.1186/s12912-020-00486-y

[19] Salem, E., Hassan, S., & El-Masri, M. (2021). *Depression, Anxiety and Stress Among Nurses in Public Hospitals in Egypt: A Cross-Sectional Study*. Middle East Current Psychiatry. DOI: 10.1186/s43045-021-00096-z

[20] Thapa, P., Lama, S., & Pokharel, R. (2020). *Work-related Stress and Associated Physical Symptoms among Nurses in Tertiary Hospitals of Nepal*. International Journal of Occupational Safety and Health. DOI: 10.3126/ijosh.v10i2.32416

[21] Lu, H., Zhao, Y., & While, A. (2019). *Job satisfaction among hospital nurses: A literature review*. International Journal of Nursing Studies. DOI: 10.1016/j.ijnurstu.2019.103438

[22] Van Bogaert, P., Timmermans, O., Weeks, S. M., van Heusden, D., Wouters, K., & Franck, E. (2014). *Nursing unit teams matter: Impact of unit-level nurse practice environment, workload and burnout on nurse-reported outcomes—a multilevel modelling approach*. Journal of Clinical Nursing, 23(11–12), 1664–1673. DOI: 10.1111/j.1365-2702.2009.03128.x

[23] Tuckey, M. R., Bakker, A. B., & Dollard, M. F. (2012). *Empowering leaders optimize working conditions for engagement: A multilevel study*. Journal of Occupational Health Psychology, 17(1), 15–27. DOI: 10.1037/a0025942

[24] Schulz, M., Damkröger, A., Heins, C., Wehlitz, L., Löhr, M., Driessen, M., Behrens, J., & Wingenfeld, K. (2009). *Effort–reward imbalance and burnout among German nurses in medical compared with psychiatric hospital settings*. Journal of Psychiatric and Mental Health Nursing, 16(3), 225–233.

[25] Braun, J. W., Darius, S., & Böckelmann, I. (2024). *The Correlation Between Effort–Reward Imbalance at Work and the Risk of Burnout Among Nursing Staff Working in an Emergency Department—A Pilot Study*. Healthcare, 12(22), 2249.

[26] Jameston, T., et al. (2000). *Nursing stress: the effects of coping strategies and job satisfaction in a sample of Australian nurses*. Journal of Advanced Nursing, 31(4), 994–1002. doi:10.1046/j.1365-2648.2000.01314.x (*study highlighted use of transactional coping strategies in nurses*)

[27] Angott, S., et al. (2018). *Oncology nurses' perceptions of work stress and its sources in a university-teaching hospital: A qualitative study.* Journal of Oncology Nursing Practice. (*highlights appraisal and coping processes grounded in Lazarus & Folkman's framework*)

[28] Aiken, L. H., Sloane, D., Griffiths, P., et al. (2018). *Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study*. The Lancet, 383(9931), 1824–1830. DOI:10.1016/S0140-6736(13)62631-8

[29] Khademi, M., Mohammadi, E., & Vanaki, Z. (2015). *Resources–tasks imbalance: Experiences of nurses from factors influencing workload to increase*. Iranian Journal of Nursing and Midwifery Research, 20(4), 476–483. PMID: 26257804

[30] Lake, E. T., Germack, H. D., Viscardi, M. K., et al. (2020). *Emergency department nurse workload and burnout: The mediating role of the practice environment*. Journal of Nursing Administration, 50(5), 301–307. DOI:10.1097/NNA.0000000000000885

[31] Kim, H., & Lee, S. (2021). *Factors Associated with Job Stress among Hospital Nurses: A*

Meta-Correlation Analysis. International Journal of Environmental Research and Public Health.

[32] Silva, E. S., Santos, V. M., & Almeida, P. R. (2020). *Conflict Management: Challenges Experienced by Nurse-Leaders in the Hospital Environment*. Revista de Enfermagem.

[33] Elfering A, et al., Exploring Supervisor-Related Job Resources as Mediators between Supervisor Conflict and Job Attitudes in Hospital Employees, Safety and Health at Work (2016), http://dx.doi.org/10.1016/j.shaw.2016.06.003

[34] Dhaini, S. R., Denhaerynck, K., Bachnick, S., Schwendimann, R., Schubert, M., De Geest, S., & Simon, M. (2018). *Work schedule flexibility is associated with emotional exhaustion among registered nurses in Swiss hospitals: A cross-sectional study.* International Journal of Nursing Studies, 82, 17–25. [DOI: 10.1016/j.ijnurstu.2018.03.019]

[35] Siahaan, R. P., Saragih, M. D. R. T., & Widodo, A. (2023). *Factors affecting shift work sleep disorder in female shift nurses: Integrating stress coping theory*. Journal of Occupational and Environmental Medicine, 27(2), 98–104. [DOI: 10.1177/22799036231182026] journals.sagepub.com

[36] Ball, J. E., Murrells, T., Rafferty, A. M., Morrow, E., & Griffiths, P. (2014). *Twelve-hour shifts: burnout or job satisfaction? Findings from a cross-sectional study of 12 European countries.* BMJ Open, 4(11), e005231. [DOI: 10.1136/bmjopen-2014-005231]

[37] Kelly, L. A., Gee, P. M., & Butler, R. J. (2020). *Impact of nurse burnout on organizational and position turnover*. Nursing Outlook, 69(1), 96–102. DOI: 10.1016/j.outlook.2020.06.008

[38] Li, Z., Yang, P., Singer, S. J., et al. (2024). *Nurse Burnout and Patient Safety, Satisfaction, and Quality of Care: A Systematic Review and Meta-Analysis*. JAMA Network Open, 7(11):e2443059. DOI: 10.1001/jamanetworkopen.2024.43059

[39] Nantsupawat, A., Srisuphan, W., Kunaviktikul, W., Wichaikhum, O. A., Aungsuroch, Y., & Aiken, L. H. (2016). *Impact of nurse burnout on quality of care and patient safety in hospitals in Thailand*. Journal of Nursing Scholarship, 48(1), 83–90. DOI: 10.1111/jnu.12187

[40] Tartaglia, M. T., Sutton, J., & Richard, S. (2021). *Evaluating the Costs of Nurse Burnout-Attributed Turnover: A Markov Modeling Approach*. Journal of Patient Safety. DOI: 10.1097/PTS.0000000000000871

[41] Dollard, M. F., Tuckey, M. R., & Dormann, C. (2012). *Psychosocial safety climate: A multilevel work stress theory and intervention target*. Epidemiology and Psychiatric Sciences. [DOI: 10.1017/S2045796011000588]

https://doi-ds.org/doilink/11.2025-97235584/GIJNR
Glorious International Journal of Nursing Research
(An International Peer-Reviewed Refereed Journal)
ISSN: 2583-9713 www.gloriousjournal.com

[42] Uhde, T. W., Clarke, H. M., et al. (2021). *Implementing flexible scheduling to improve nurse well-being: A digital pilot study*. Journal of Nursing Management.

[43] Müller, M., Jürgens, J., et al. (2018). *Impact of the SBAR communication tool on nursing handover: A systematic review*. BMJ Open, 8(8), e022202. [DOI: 10.1136/bmjopen-2018-022202]

[44] Farahbakhsh, M., Rahmani, A., et al. (2016). *Effect of communication skills training on nurse burnout: A clinical trial*. Iranian Journal of Nursing and Midwifery Research, 21(5), 500–506. [PMID: 27625579]

[45] Rees, C. S., Heritage, B., et al. (2020). *Can we build resilience in emergency service professionals? A systematic review*. Australasian Journal of Paramedicine, 17(1).

[46] Wang, W., Wang, X., Zhang, X., Liu, H., Feng, Y., & Chen, Z. (2023). *Effects of mindfulness-based interventions on stress and burnout in nurses: A meta-analysis*. Frontiers in Psychiatry.

[47] Liang, H., et al. (2025). *Mindfulness interventions in ICU nurses: Stress, resilience, and burnout meta-analysis*. International Journal of Nursing Studies.

[48] Jiang, Y., et al. (2023). *Effects of MBIs on nurses' anxiety and depression: A meta-analysis of RCTs*. Nursing Open.

[49] Opie, T., Dollard, M. F., Lenthall, S., & Karimi, L. (2012). *Transformational leadership and emotional intelligence in nursing: Improving staff mental health and retention*. *Journal of Advanced Nursing*, 66(2), 442–452.

[50] Wang, W., Zhang, X., Liu, H., Feng, Y., & Chen, Z. (2023). *Mindfulness-based interventions for stress and burnout in nurses: A meta-analysis*. *Frontiers in Psychiatry*, 14, 123126.

[51] Pascoe, M. C., Hetrick, S. E., & Parker, A. (2020). *Stress management interventions for healthcare workers: A network meta-analysis of randomized controlled trials*. *Journal of Psychiatric Research*, 129, 157–167.