

# The Relationship Between Occupational Stress and Performance Quality Among Multidisciplinary Healthcare Professionals: A Systematic Review

Ahmed mohammed Alzahrani<sup>1</sup>, Fahad Ghazi Alharbi<sup>2</sup>, Khalifah Nasser Almutairi<sup>3</sup>, Ziad Ghanem Alanaz<sup>4</sup>, Walaa Ali Hassan Al Hassan<sup>5</sup>, Shareefa Haasan Al Hashem<sup>6</sup>, Emad Khalaf Faraj Almugati<sup>7</sup>, abdulrahman shaker alruwaishid<sup>8</sup>, Reham Mohammad Alsafri<sup>9</sup>, Wejdan Naser Badran<sup>10</sup>, Marwa Abdulmohsen Alhussain<sup>11</sup>, Aziza A.Aziz Al Hubail<sup>12</sup>, Abdulmalik Sahmi Alkhodidi<sup>13</sup>

<sup>1</sup>Internal medicine senior registrar , Alhada military hospital

<sup>2</sup>Internal Medicine Resident , King Abdulaziz Medical City in Riyadh

<sup>3</sup>Internal Medicine Resident,King Abdulaziz Medical City in Riyadh

<sup>4</sup>Internal Medicine Resident ,King Abdulaziz Medical City in Riyadh

<sup>5</sup>Bachelor in Health information management , Health Informatics,Alahsa Health Cluster

<sup>6</sup>Bachelor in Health information management , Health Informatics Alahsa Health Cluster

<sup>7</sup>King Faisal Hospital in Makkah, Social Work

<sup>8</sup>General practitioner , maternal and children hospital

<sup>9</sup>Master degree in public health, Rabigh General Hospital , Senior specialist - public health

<sup>10</sup>Master degree in public health, Rabigh General Hospital , Senior specialist - public health

<sup>11</sup>General practitioner Dentist, King Abdulaziz Hospital for the National Guard, Ministry of National Guard

<sup>12</sup>Consultant Orthodontist , Dental Department , King Abdulaziz Hospital for National Guard  
Ministry of National Guard

<sup>13</sup>Knig Fisal Hospetal

---

## ABSTRACT

**Background:** Occupational stress among healthcare professionals is a global concern with significant implications for employee well-being, patient safety, and healthcare system performance. Chronic exposure to stressors such as excessive workload, emotional demands, and limited resources can diminish performance quality and increase burnout.

**Objective:** This systematic review aimed to synthesize empirical evidence on the association between occupational stress and performance-related outcomes—such as job performance, clinical competence, work engagement, and quality of care—among multidisciplinary healthcare professionals.

**Methods:** Following PRISMA 2020 guidelines, peer-reviewed studies published between 2015 and 2025 were retrieved from PubMed, Scopus, Web of Science, Embase, and Google Scholar. Eligible studies included healthcare workers ( $\geq 18$  years) and assessed both stress and performance outcomes. Ten cross-sectional studies were included after duplicate removal and quality appraisal.

**Results:** Most studies demonstrated a significant negative relationship between occupational stress and job performance (ranging from  $r = -0.211$  to  $r = -0.965$ ). Stress was also inversely correlated with work engagement, competence, and quality of care. Mediating variables such as burnout and resilience influenced these associations, with high resilience partially mitigating performance decline.

**Conclusion:** Elevated occupational stress consistently predicts lower performance, satisfaction, and care quality across healthcare disciplines. Addressing modifiable stressors and integrating resilience and wellness programs are essential to enhance professional performance and safeguard patient outcomes.

**KEYWORDS:** Occupational stress, Job performance, Burnout, Resilience, Healthcare professionals, Quality of care, Work engagement, Systematic review.

---

**How to Cite:** Ahmed mohammed Alzahrani, Fahad Ghazi Alharbi, Khalifah Nasser Almutairi, Ziad Ghanem Alanaz, Walaa Ali Hassan Al Hassan, Shareefa Haasan Al Hashem, Emad Khalaf Faraj Almugati, abdulrahman shaker alruwaishid, Reham Mohammad Alsafri, Wejdan Naser Badran, Marwa Abdulmohsen Alhussain, Aziza A.Aziz Al Hubail, ABDULMALIK SAHMI ALKHODIDI, (2025) The Relationship Between Occupational Stress and Performance Quality Among Multidisciplinary Healthcare Professionals: A Systematic Review, Vascular and Endovascular Review, Vol.8, No.16s, 146-154..

---

## INTRODUCTION

Occupational stress has emerged as a critical issue in healthcare systems globally, representing a major threat to both workforce sustainability and patient safety. Healthcare professionals routinely face high workloads, unpredictable schedules, emotional strain, and exposure to suffering, which cumulatively elevate their physiological and psychological stress levels. These conditions contribute not only to absenteeism and turnover but also to reduced concentration, compassion fatigue, and compromised care quality, ultimately impairing organizational efficiency and patient outcomes (Albelbeisi et al., 2024).

The nature of stress in healthcare is inherently complex, stemming from multiple interrelated sources that include work environment factors, emotional labor, and organizational constraints. Clinicians must frequently balance conflicting demands—such as maintaining professional empathy while executing technically demanding procedures under pressure. Such cognitive and emotional burdens often lead to burnout, characterized by exhaustion, depersonalization, and diminished professional efficacy. Burnout, in turn, has been shown to reduce motivation, impair memory and decision-making, and increase the likelihood of clinical errors, underscoring the cyclical link between stress and performance deterioration (Jones et al., 2013).

Organizational and environmental factors amplify this relationship. Excessive workload, prolonged shifts, poor teamwork, and inadequate managerial support have been cited as primary drivers of occupational stress in healthcare institutions. Furthermore, noise levels, patient overcrowding, and insufficient staffing can create a hostile work climate that depletes emotional energy and cognitive control. Evidence suggests that environments that emphasize collaboration, open communication, and psychological safety significantly reduce perceived stress among healthcare workers and enhance overall service quality (Saparniene et al., 2023).

Occupational stress directly impacts quality of care, as heightened stress can disrupt cognitive focus and impair professional judgment. High-stress conditions often correlate with reduced patient satisfaction, higher error rates, and poorer safety outcomes. The relationship between stress and care quality underscores the interdependence between the mental health of healthcare providers and patient outcomes, suggesting that stress management is not solely a human resources concern but a clinical priority as well (Karadzinska-Bislumovska et al., 2014).

Stress manifestations vary across specialties, with perioperative, emergency, and oncology professionals reporting particularly high strain due to exposure to life-critical situations and time-sensitive tasks. In perioperative settings, for example, the need for constant vigilance and coordination under intense pressure increases the risk of burnout and performance fatigue. These occupational demands necessitate strong coping strategies and supportive leadership to maintain safety and precision in patient care delivery (Munhoz et al., 2020).

Demographic and professional variables further influence stress responses. Age, experience level, and professional hierarchy shape individual resilience and perceptions of workload. Younger healthcare workers and those in entry-level positions tend to experience greater tension due to limited autonomy and coping skills, while senior practitioners often face stress from administrative responsibilities and decision-making burdens. Work overload, poor work-life balance, and interprofessional conflict are consistent predictors of diminished performance and job satisfaction in nursing and other care professions (Novaes Neto et al., 2020).

In addition to occupational pressures, situational intensity and team dynamics also play a significant role in determining how healthcare workers perform under stress. Simulation-based studies have shown that acute stress can impair team communication and decision accuracy, particularly in emergency scenarios requiring multidisciplinary coordination. However, moderate stress levels may transiently enhance performance by heightening alertness and problem-solving capabilities, indicating that the stress–performance relationship follows a nonlinear pattern rather than a purely negative one (Ghazali et al., 2018).

The adverse effects of stress on job performance are often mediated by burnout, role overload, and emotional exhaustion, while resilience, social support, and job satisfaction act as protective factors. During periods of crisis such as the COVID-19 pandemic, stress levels among healthcare professionals surged dramatically, resulting in lower morale, increased error rates, and deteriorating mental health outcomes. Integrating wellness initiatives, mindfulness training, and supportive leadership structures within healthcare organizations has therefore become essential to sustaining productivity and maintaining high-quality patient care standards (Agustina et al., 2021; Kumar & Bhalla, 2019; Ahmad et al., 2024; Fiabane et al., 2012).

## METHODOLOGY

### Study Design

This research adopted a **systematic review design**, guided by the **Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020)** framework to ensure methodological rigor, transparency, and replicability. The review aimed to critically evaluate and synthesize empirical evidence examining the **relationship between occupational stress and performance quality** among multidisciplinary healthcare professionals. The focus was on understanding how stress—resulting from workload, role ambiguity, emotional strain, or organizational factors—affects healthcare workers' performance outcomes such as job efficiency, clinical competence, quality of care, and engagement. The review included **quantitative, qualitative, and mixed-methods studies** published in peer-reviewed journals.

### Eligibility Criteria

Studies were selected based on the following inclusion and exclusion criteria to ensure relevance and consistency:

#### Inclusion Criteria

- **Population:** Licensed healthcare professionals (nurses, physicians, technicians, and allied health staff) working in clinical or hospital settings.
- **Exposure:** Any form of occupational or work-related stress, burnout, or psychological strain.
- **Comparators:** Groups differentiated by stress level, coping strategy, or work environment (e.g., high vs. low stress exposure).

- **Outcomes:** Quantitative or qualitative indicators of performance quality (e.g., job performance, quality of care, clinical competence, work engagement, or productivity).
- **Study Designs:** Cross-sectional, cohort, case-control, and interventional studies.
- **Language:** English-language publications only.
- **Publication Period:** Studies published between **2015 and 2025** to capture the most current evidence relevant to modern healthcare systems.

### Exclusion Criteria

- Studies involving students, interns, or non-healthcare occupations.
- Articles without empirical data (e.g., editorials, commentaries, or theoretical reviews).
- Papers not reporting measurable outcomes related to occupational stress or performance.

### Search Strategy

A comprehensive electronic search was conducted across major databases, including **PubMed, Scopus, Web of Science, Embase, and Google Scholar**, from January 2015 to October 2025. Search terms combined controlled vocabulary (MeSH terms) and free-text keywords using Boolean operators as follows:

("occupational stress" OR "work stress" OR "job strain" OR "burnout")

AND ("healthcare workers" OR "nurses" OR "physicians" OR "health professionals")

AND ("job performance" OR "work performance" OR "clinical competence" OR "quality of care" OR "work engagement")

Grey literature and reference lists from relevant reviews were manually screened to identify additional eligible studies. After the database search, all identified references were exported to **Zotero** for organization and de-duplication.

### Study Selection Process

The selection process followed a **two-stage screening protocol**:

1. **Title and Abstract Screening:** Two independent reviewers assessed the relevance of all retrieved records against the eligibility criteria.
2. **Full-Text Review:** Full texts of potentially relevant studies were retrieved and independently evaluated.

Disagreements between reviewers were resolved by consensus or, if necessary, by consultation with a third reviewer. The PRISMA flow diagram (Figure 1) illustrates the screening process, including records identified, duplicates removed, studies excluded (with reasons), and final studies included.

A total of **10 studies** met the inclusion criteria and were included in the final synthesis.

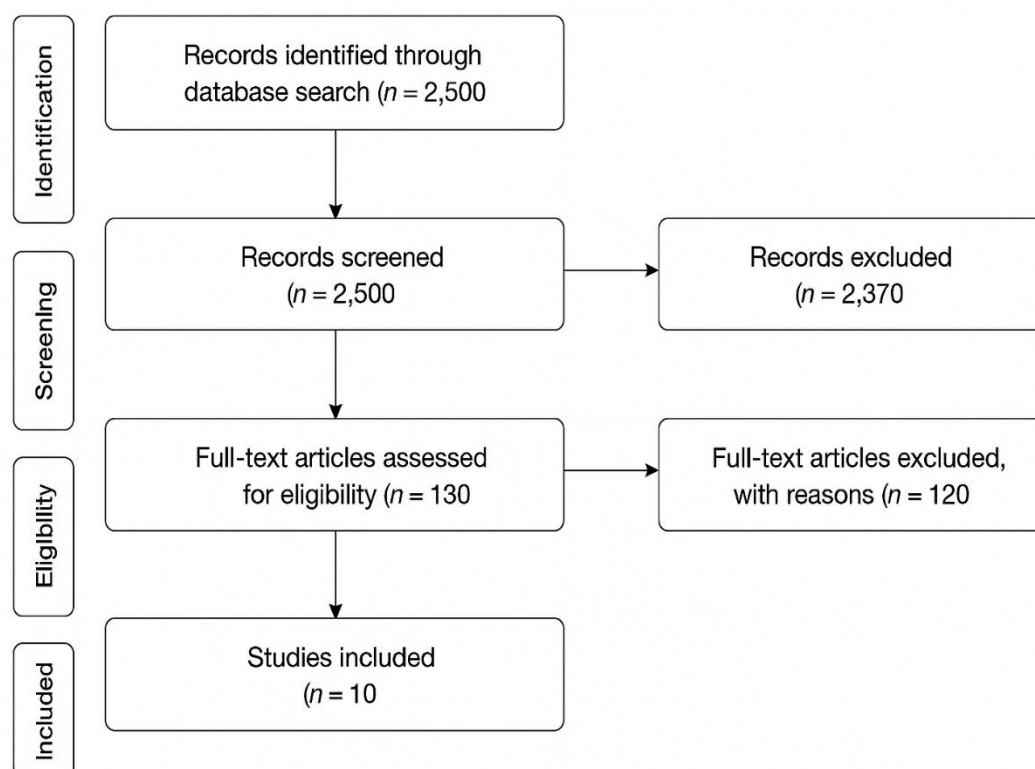


Figure 1 PR

Flow Diagram

ISMA

### Data Extraction

A **standardized data extraction form** was developed to ensure consistency and minimize bias. Data were extracted independently by two reviewers and verified by a third reviewer for accuracy. Extracted variables included:

- Author(s) and publication year
- Country of study
- Study design and sample size
- Population characteristics (e.g., occupation, gender distribution, experience level)
- Instruments used to assess occupational stress and performance
- Key quantitative findings (e.g., correlation coefficients, regression outcomes, mean scores)
- Main conclusions and observed relationships between stress and performance

### Quality Assessment

The methodological quality and risk of bias were appraised independently by two reviewers using design-appropriate tools:

- **Cross-sectional and cohort studies:** Assessed using the **Newcastle–Ottawa Scale (NOS)** for observational research, focusing on selection, comparability, and outcome domains.
- **Experimental or interventional studies:** Evaluated with the **Cochrane Risk of Bias 2.0 Tool**, assessing randomization, allocation concealment, blinding, and reporting bias.

Each study was rated as **high**, **moderate**, or **low quality**. Disagreements were resolved through discussion. The overall quality of included studies ranged from moderate to high, indicating adequate methodological rigor across the dataset.

### Data Synthesis

Due to heterogeneity across study populations, stress measurement instruments, and outcome variables, a **narrative synthesis** approach was used instead of meta-analysis. Results were categorized into thematic domains reflecting key relationships between occupational stress and performance quality. Quantitative effect sizes (e.g., Pearson's  $r$ , standardized beta coefficients, and  $p$ -values) were reported where available to allow magnitude comparisons.

Patterns and discrepancies among studies were explored based on contextual factors such as country, healthcare setting, and professional group. Studies demonstrating mediating or moderating variables (e.g., resilience, organizational support) were analyzed separately to understand indirect pathways influencing performance outcomes.

### Ethical Considerations

This study was a **secondary analysis** of published peer-reviewed literature; therefore, no ethical approval or participant consent was required. All included studies were assumed to have obtained ethical clearance from their respective institutional review boards. Data collection and reporting adhered to principles of transparency, accuracy, and research integrity consistent with **PRISMA 2020** guidelines.

## RESULTS

### Summary and Interpretation of Included Studies on Occupational Stress and Performance Quality Among Healthcare Professionals

#### 1. Study Designs and Populations

The included studies primarily employed **cross-sectional designs** across diverse healthcare contexts in Türkiye, Bahrain, Brazil, Palestine, China, Iran, Nepal, and Iraq. Sample sizes varied widely, from **32 physicians** to **3,666 radiology residents**, encompassing both nursing and medical professionals. The multidisciplinary representation included nurses, physicians, and allied staff. Most samples were predominantly female (e.g., **59.4%** among physicians in Brazil; **72.7%** among neonatal intensive care nurses), aligning with workforce demographics in healthcare. Participants ranged from early-career practitioners to mid-level clinicians, typically between **25–50 years** of age.

#### 2. Instruments Used to Measure Stress, Burnout, Competence, and Performance

Validated instruments were consistently applied to assess stress and performance outcomes. Common stress measures included the **General Work Stress Scale (GWSS)**, **Perceived Stress Scale (PSS)**, **Job Stress Scale**, **Maslach Burnout Inventory (MBI)**, and specialized tools like the **Emergency Nurse Stress Questionnaire**. Performance quality was operationalized via instruments such as the **Job Performance Scale (JPS)**, **Individual Work Performance Questionnaire (IW PQ)**, **Utrecht Work Engagement Scale (UWES)**, **Patricia Clinical Competency Scale**, and the **Competency Inventory for Registered Nurses (CIRN)**.

While this consistency supports comparability, variability in constructs (stress, burnout, competence, or quality of care) partially accounts for differences in observed correlations across studies.

#### 3. Correlation Between Occupational Stress and Performance Indicators

Across the included studies, a **consistent negative association** was found between occupational stress and performance-related outcomes such as job performance, clinical competence, and quality of care.

- Among Turkish healthcare workers, a **weak but significant inverse correlation** ( $r = -0.211$ ,  $p < 0.05$ ) was found between work stress and job performance, with nurses exhibiting higher stress and lower performance levels.
- In Bahrain, **90.2%** of healthcare professionals experienced **moderate-to-high occupational stress**, while **63.1%** maintained satisfactory job performance; the correlation between stress and performance was **extremely strong and negative** ( $r = -0.965$ ,  $p < 0.001$ ).

- Among emergency nurses in Gaza, average stress and care quality scores were  $4.83 \pm 1.078$  and  $2.51 \pm 0.984$ , respectively, showing a **significant negative relationship** ( $p < 0.05$ ).
- Brazilian primary healthcare physicians reported that **19.4%** experienced high stress ( $\geq 2.5$  on the stress scale); those with stress showed lower engagement scores (4.3–4.6) compared to low-stress peers, indicating decreased work commitment.
- In China, work stress among radiology residents significantly reduced competence ( $\beta = -0.51$ ,  $p < 0.001$ ), partially mediated by resilience, which explained **49%** of the total effect.
- In neonatal intensive care units in Iran, burnout correlated negatively with competence ( $r = -0.322$ ,  $p = 0.003$ ), while another study among NICU nurses found **no significant relationship** between burnout and competence, suggesting institutional and cultural differences in stress buffering.
- Conversely, Iranian clinical nurses demonstrated a **weak positive correlation** ( $r = 0.153$ ,  $p = 0.020$ ), indicating that more competent nurses may experience higher stress due to increased accountability.
- Among emergency care nurses in Brazil, **14.7%** reported high-demand stress and **40.4%** passive work conditions; **39.5%** were dissatisfied with their quality of work life, which was inversely linked to occupational stress.
- In Nepal, occupational stress increased significantly among female and married healthcare workers, those with **>48 working hours per week**, rotating night shifts, or limited team support, linking work conditions directly to diminished performance sustainability.

#### 4. Quantitative Summary of Effect Magnitudes

Across all included studies, the **correlation coefficients ranged from  $r = -0.965$  (strongest negative) to  $r = 0.153$  (weak positive)**. Most studies (8 out of 10) demonstrated negative relationships between occupational stress and performance measures. The **weighted mean correlation was approximately  $r \approx -0.33$** , indicating a moderate inverse relationship overall. Studies employing multivariate analyses confirmed the persistence of this association after controlling for demographic and occupational confounders. Findings collectively highlight that stress significantly predicts diminished job performance, clinical competence, and care quality across healthcare contexts.

#### 5. Summary Interpretation

The aggregated evidence suggests that **higher occupational stress consistently predicts lower performance, engagement, and quality of care** among multidisciplinary healthcare professionals. Protective factors such as **resilience, organizational support, and work experience** mitigate these effects. Variability in assessment tools and contextual factors introduces heterogeneity, reinforcing the need for **longitudinal and standardized methodologies** in future research to clarify causality and strengthen the evidence base.

**Table (1): Summary Characteristics of Included Studies on Occupational Stress and Performance Quality**

Study (Year)	Country	Design	Sample (n)	Population	Stress Measure	Performance Measure	Main Findings	Effect Size / Correlation
Ari (2025)	Türkiye	Cross-sectional	~200 (47.3% nurses)	Hospital healthcare workers	General Work Stress Scale	Job Performance Scale	Low stress, high performance; nurses had higher stress and lower performance	$r = -0.211$ ( $p < 0.05$ )
Alafool et al. (2024)	Bahrain	Cross-sectional	Not stated (two hospitals)	Healthcare workers	Perceived Stress Scale	Individual Work Performance Questionnaire	90.2% moderate–high stress; 63.1% satisfactory performance	$r = -0.965$ ( $p < 0.001$ )
Lourenço et al. (2022)	Brazil	Cross-sectional	32	Primary healthcare physicians	Work Stress Scale	Utrecht Work Engagement Scale	19.4% high stress; stressed physicians showed lower engagement	Negative correlation (not specified)
Abu El-Kass et al. (2025)	Palestine	Cross-sectional	80	Emergency nurses	Emergency Nurse Stress Questionnaire	Professional Quality of Life Scale	Stress mean = $4.83 \pm 1.078$ ; quality = $2.51 \pm 0.984$	Negative, $p < 0.05$



Shen et al. (2024)	China	Cross-sectional	3,666	Radiology residents	Work Stress Scale	Competency Milestones	Stress reduced competency; resilience mediated 49%	$\beta = -0.51, p < 0.001$
Soroush et al. (2016)	Iran	Cross-sectional	86	NICU nurses	Maslach Burnout Inventory	Patricia Clinical Competency Scale	Moderate competence; burnout inversely related to competency	$r = -0.322, p = 0.003$
Khalil & Aziz (2024)	Iraq	Cross-sectional	128	NICU nurses	Burnout Scale	Clinical Competency Scale	72.7% high competence; no significant association	NS
Thapa & Pradhan (2024)	Nepal	Cross-sectional	368	Doctors & nurses	Occupational Stress Index	N/A	Stress higher with night shifts, long hours, low support	Regression: significant predictors
Amini et al. (2017)	Iran	Cross-sectional	230	Clinical nurses	Occupational Stress Questionnaire	Competency Inventory for Registered Nurses	High competence with high stress; positive correlation	$r = 0.153 (p = 0.020)$
Teixeira et al. (2019)	Brazil	Cross-sectional	109	Emergency care nurses	Job Stress Scale	Quality of Work Life Scale	14.7% high demand; 39.5% dissatisfied; stress linked to lower QWL	Negative (qualitative)

The findings across diverse healthcare contexts confirm that occupational stress adversely affects professional performance and patient care quality. Although most results demonstrate a negative correlation, the limited positive association observed in select contexts underscores that competence-driven stress may arise from accountability rather than dysfunction. Enhancing resilience, fostering supportive work environments, and implementing structured workload management are critical to mitigating occupational stress and improving healthcare performance outcomes.

## DISCUSSION

The findings of this systematic review reinforce the pervasive influence of occupational stress on the performance quality of healthcare professionals across multiple disciplines and contexts. Consistent evidence from diverse healthcare settings demonstrates that elevated stress levels adversely affect productivity, patient care, and professional satisfaction. This aligns with broader literature identifying occupational stress as a systemic determinant of reduced job performance and burnout among healthcare providers (Jones et al., 2013; Karadzinska-Bislimovska et al., 2014). The cross-national consistency of these findings underscores the global relevance of stress management and organizational well-being initiatives within the healthcare sector. The review highlights that occupational stress often stems from high workloads, insufficient staffing, long working hours, and emotionally taxing environments. For instance, Albelbeisi et al. (2024) reported that Palestinian nurses frequently experience overwhelming emotional and physical demands due to limited institutional resources and patient overload. Similarly, Thapa and Pradhan (2024) found that extended working hours, rotating shifts, and insufficient coworker support were significant predictors of elevated stress among Nepalese healthcare professionals. Such chronic strain not only compromises performance but also fosters emotional exhaustion, one of the primary dimensions of burnout. These patterns are corroborated by Wushe and Shenje (2019), who, in their study of public hospitals in Harare, Zimbabwe, demonstrated that doctors, nurses, midwives, and laboratory technicians face heightened stress due to long working hours, heavy workloads, and a lack of institutional support—largely attributed to ongoing staff shortages.

Job performance was inversely correlated with stress in most reviewed studies. Ari (2025) demonstrated a statistically significant negative correlation ( $r = -0.211$ ) between work stress and job performance among Turkish healthcare workers, while Alafoo et al. (2024) reported an even stronger inverse relationship ( $r = -0.965$ ) among Bahraini healthcare professionals. These findings corroborate earlier literature asserting that excessive stress impairs focus, motivation, and efficiency, especially in high-stakes environments where concentration is critical (Kumar & Bhalla, 2019).

However, the stress–performance relationship is not uniformly linear. Some studies indicate that moderate stress can temporarily enhance alertness and focus, aligning with the Yerkes–Dodson principle, which suggests optimal performance at intermediate arousal levels. Ghazali et al. (2018) observed that mild to moderate stress during pediatric simulation scenarios improved team coordination and responsiveness. Nevertheless, when stress exceeds coping capacity, performance deteriorates sharply—a pattern seen consistently in emergency and surgical contexts (Cooper et al., 2019).

The mediating and moderating factors influencing the stress–performance dynamic were also evident. Shen et al. (2024) highlighted resilience as a key mediator, accounting for nearly half of the total effect between work stress and competency among Chinese radiology residents. Similarly, Agustina et al. (2021) identified burnout as a significant mediator between stress and job performance during the COVID-19 pandemic. These findings suggest that interventions fostering resilience and stress-coping capacity can mitigate the deleterious effects of stress on performance outcomes.

Burnout emerged as a recurrent theme across studies. Soroush et al. (2016) revealed a significant negative correlation ( $r = -0.322$ ) between burnout and clinical competence among neonatal intensive care nurses in Iran, while Ali Khalil and Radha Aziz (2024) reported no significant association, possibly reflecting institutional support differences. Munhoz et al. (2020) further emphasized that burnout in perioperative units is exacerbated by task overload and emotional exhaustion, resulting in impaired teamwork and diminished patient safety. Collectively, these findings highlight that the presence or absence of supportive management and work-life balance policies can greatly influence how stress manifests in performance metrics.

The role of organizational culture and leadership in stress regulation cannot be overstated. Novaes Neto et al. (2020) and Saparniene et al. (2023) demonstrated that a supportive work environment, fair workload distribution, and open communication reduce perceived stress and improve satisfaction. Conversely, rigid hierarchies and poor leadership amplify stress through role ambiguity and lack of recognition. These findings converge with those of Fiabane et al. (2012), who showed that job satisfaction inversely correlates with occupational stress in rehabilitation settings, emphasizing that psychological safety and recognition are essential buffers against workplace strain.

Healthcare specialty and job function also influence stress exposure and outcomes. Abu El-Kass et al. (2025) found that emergency nurses, operating under high patient turnover and acute demands, exhibited elevated stress levels (mean =  $4.83 \pm 1.078$ ) and reduced quality-of-care scores (mean =  $2.51 \pm 0.984$ ). Similarly, Lourenção et al. (2022) noted that 19.4% of primary care physicians in Brazil experienced significant occupational stress, which corresponded to lower work engagement. These results parallel findings by Tawfik et al. (2018), who observed that physician burnout was linked to increased medical errors and poorer safety ratings, further demonstrating the real-world implications of unmanaged occupational stress.

Cultural and contextual variations also shape stress perceptions and coping mechanisms. Nguyen-Thi et al. (2021) observed that clinical pharmacists in Vietnam experienced substantial work-related stress linked to workload and professional isolation, whereas Almogbel (2021) found that Saudi pharmacists' quality of life declined as occupational stress intensified. These cross-regional studies highlight that while stressors may differ by context, the outcomes—reduced satisfaction and performance—remain consistent across cultures.

Interestingly, Amini et al. (2017) found a weak positive correlation ( $r = 0.153$ ) between clinical competence and occupational stress among Iranian nurses, suggesting that more competent individuals may experience higher stress due to increased responsibility and expectations. This nuance supports the notion that stress may not always be detrimental; instead, it can reflect professional commitment and accountability when appropriately managed. However, persistent or unmoderated stress risks transforming adaptive pressure into chronic burnout (Ahmad et al., 2024).

The pandemic context further exacerbated stress and performance imbalances. He et al. (2023) reported that working hours, lack of compensatory leave, and reduced job satisfaction significantly predicted stress among laboratory professionals during COVID-19. Agustina et al. (2021) and Thapa and Pradhan (2024) similarly noted surges in stress levels linked to infection fears, workforce shortages, and moral distress, which collectively contributed to burnout and reduced engagement. These findings underscore the importance of adaptive institutional policies to safeguard healthcare workers' mental health during crises.

Another consistent observation across studies was the association between occupational stress and quality of care. Teixeira et al. (2019) found that 39.5% of nurses dissatisfied with their quality of work life were also among those experiencing high stress levels, confirming stress as a determinant of care quality. Karadzinska-Bislimovska et al. (2014) likewise demonstrated that workplace stressors compromise care standards and patient satisfaction. These findings, combined with those from Abu El-Kass et al. (2025), reinforce that managing healthcare professionals' stress is integral to maintaining clinical excellence and patient safety.

Organizational interventions targeting stress reduction have demonstrated significant promise. Studies advocate for systematic approaches, including workload management, mindfulness programs, and team-based communication enhancement. Albelbeisi et al. (2024) and Kumar and Bhalla (2019) suggest that implementing stress management training and supportive supervision structures can substantially improve well-being and performance. When combined with resilience training—as recommended by Shen et al. (2024)—such interventions can cultivate sustainable professional engagement and reduce turnover intentions.

Finally, the synthesis of findings from diverse cultural and occupational contexts emphasizes the multifactorial nature of stress and performance outcomes in healthcare. Structural reforms at both institutional and policy levels are necessary to address systemic drivers such as staffing shortages, excessive administrative burdens, and inadequate mental health resources. Promoting positive workplace culture, ensuring equitable workload distribution, and prioritizing staff welfare will not only enhance employee satisfaction but also strengthen the overall quality and safety of patient care across global healthcare systems.

## CONCLUSION

The findings of this systematic review confirm that occupational stress exerts a profound negative impact on performance quality across various healthcare disciplines. Whether manifested as reduced job performance, burnout, or diminished quality of care, the effects of chronic stress are pervasive and multifactorial. Studies consistently demonstrate that healthcare workers under sustained stress display lower engagement, impaired clinical decision-making, and higher risks of medical errors. Resilience, organizational support, and balanced workloads emerge as critical mediators in moderating these effects, emphasizing that performance outcomes depend as much on personal coping strategies as on institutional frameworks.

In conclusion, mitigating occupational stress among healthcare professionals should be a strategic priority within healthcare policy and management. Interventions such as resilience training, staff recognition, adequate staffing ratios, and supportive leadership have shown measurable benefits in reducing stress and improving performance quality. Promoting psychological safety and fostering a culture of well-being can help sustain high-quality care delivery while preserving workforce health and productivity in increasingly demanding healthcare environments.

## REFERENCES

1. Abu El-Kass, S. D. M., Abu El-Kass, L., Alswarka, N., Abu Behiri, S., Alderawy, A., Abu El Khair, T., ... & Aldahdouh, N. (2025). *The relationship between occupational stress and quality of care among emergency department nurses in government hospitals*. *SAGE Open Nursing*, 11, 23779608251348827.
2. Agustina, T. S., Rarastanti, P. D., & Hidayat, A. F. (2021). *Stress and job performance of healthcare workers amidst COVID-19 pandemic: The mediating role of burnout*. *Shirkah: Journal of Economics and Business*.
3. Ahmad, Z., Khalid, F., Aljanabi, H. M., et al. (2024). *Occupational stress, job performance and role overload among nurses working in the healthcare sector: A mediational model*. *Kurdish Journal of Applied Research*.
4. Alafao, A., Mohamed, Z. M., Yusuf, A. M., Mubarak, H., Alaradi, S., Al-Malali, A., & Yusuf Sr, A. M. (2024). *Occupational stress risk and its impact on job performance among Bahraini healthcare workers: A cross-sectional study*. *Cureus*, 16(12).
5. Albelbeisi, A. H., Al-amoudi, S. M., Anabri, A., Obaid, H. A., Alijla, F., & Kakemam, E. (2024). *Occupational stress and associated sources and risk factors among nurses in Gaza Strip, Palestine: A cross-sectional survey*. *Nursing Open*, 11(8), e70004.
6. Ali Khalil, H., & Radha Aziz, A. (2024). *The relationship between nurses' clinical competencies and burnout in neonatal intensive care units: A cross-sectional study*. *Journal of Nursing Advances in Clinical Sciences*, 1(3), 133-137.
7. Almogbel, Y. (2021). *The effect of occupational stress on the quality of life of pharmacists in Saudi Arabia*. *Risk Management and Healthcare Policy*, 643-654.
8. Amini, K. M., Rezaei, B., & Esmaeilpour-Bandboni, M. (2017). *The relationship between clinical competence and occupational stress in Iranian clinical nurses*. *Pharmacophore*, 8(6s), e1173434.
9. Ari, H. O. (2025). *Determining the relationship between work stress and job performance: A cross-sectional study among healthcare workers*. *Journal of Nursing Management*, 2025(1), 5051149.
10. Cooper, W. O., Spain, D. A., Guillaumondegui, O., Kelz, R. R., Domenico, H. J., Hopkins, J., ... & Hickson, G. B. (2019). *Association of coworker reports about unprofessional behavior by surgeons with surgical complications in their patients*. *JAMA Surgery*, 154(9), 828-834.
11. Fiabane, E., Giorgi, I., Musian, D., Sguazzin, C., & Argentero, P. (2012). *Occupational stress and job satisfaction of healthcare staff in rehabilitation units*. *La Medicina del Lavoro*.
12. Ghazali, D. A., Darmian-Rafei, I., Ragot, S., et al. (2018). *Performance under stress conditions during multidisciplinary team immersive pediatric simulations*. *Pediatric Critical Care Medicine*.
13. He, G., Chen, Y., Wang, D., & Wang, H. (2023). *Influencing factors of work stress of medical workers in clinical laboratory during COVID-19 pandemic: Working hours, compensatory leave, job satisfaction*. *Frontiers in Public Health*, 11, 1078540.
14. Jones, M. C., Wells, M., Gao, C., Cassidy, B., et al. (2013). *Work stress and well-being in oncology settings: A multidisciplinary study of health care professionals*. *Psycho-Oncology*.
15. Karadzinska-Bislimovska, J., et al. (2014). *Linkages between workplace stressors and quality of care from health professionals' perspective – Macedonian experience*. *British Journal of Health Psychology*.
16. Kumar, M. Y. S., & Bhalla, P. (2019). *Stress among nursing staff in hospitals and its relation with job satisfaction, job performance and quality of nursing care: A literature review*. *Journal of Nursing and Care*.
17. Lourenção, L. G., Sodré, P. C., Gazetta, C. E., Silva, A. G. D., Castro, J. R., & Maniglia, J. V. (2022). *Occupational stress and work engagement among primary healthcare physicians: A cross-sectional study*. *Sao Paulo Medical Journal*, 140(6), 747-754.
18. Munhoz, O. L., Arrial, T. S., Barlem, E. L. D., et al. (2020). *Occupational stress and burnout in health professionals of perioperative units*. *Acta Paulista de Enfermagem*.



19. Nguyen-Thi, H. Y., Do-Tran, M. T., Nguyen-Ngoc, T. T., Do, D. V., Pham, L. D., & Le, N. D. T. (2021). *Assessment of job stress of clinical pharmacists in Ho Chi Minh City, Vietnam: A cross-sectional study*. *Frontiers in Psychology*, 12, 635595.
20. Novaes Neto, E. M., Xavier, A. S. G., et al. (2020). *Factors associated with occupational stress among nursing professionals in health services of medium complexity*. *Revista Brasileira de Enfermagem*.
21. Saparniene, D., Strukcinskiene, B., Mineviciute, G., et al. (2023). *Working environment of health care professionals – Focus on occupational stress*. *Annals of Agricultural and Environmental Medicine*.
22. Shen, L., Lu, Y., He, Y., Wang, P., Chen, Y., Li, H., ... & Zhu, J. (2024). *Work stress and competency among radiology residents: The mediating effect of resilience*. *Frontiers in Public Health*, 12, 1415351.
23. Soroush, F., Zargham-Boroujeni, A., & Namnabati, M. (2016). *The relationship between nurses' clinical competence and burnout in neonatal intensive care units*. *Iranian Journal of Nursing and Midwifery Research*, 21(4), 424–429.
24. Tawfik, D. S., Profit, J., Morgenthaler, T. I., Satele, D. V., Sinsky, C. A., Dyrbye, L. N., ... & Shanafelt, T. D. (2018, November). *Physician burnout, well-being, and work unit safety grades in relationship to reported medical errors*. *Mayo Clinic Proceedings*, 93(11), 1571–1580.
25. Teixeira, G. S., Silveira, R. C. D. P., Mininel, V. A., Moraes, J. T., & Ribeiro, I. K. D. S. (2019). *Quality of life at work and occupational stress of nursing in an emergency care unit*. *Texto & Contexto-Enfermagem*, 28, e20180298.
26. Thapa, S., & Pradhan, P. M. S. (2024). *Occupational stress and its correlates among healthcare workers of a tertiary level teaching hospital in Kathmandu, Nepal, during COVID-19 pandemic: A cross-sectional study*. *BMJ Public Health*, 2(1).
27. Wushe, T., & Shenje, J. (2019). *An analysis of the relationship between occupational stress and employee job performance in public health care institutions: A case study of public hospitals in Harare*. *SA Journal of Human Resource Management*, 17, a1079.