From Burnout to Better Outcomes: A Systematic Review of Work Environment Factors and Nurse Well-Being Across Health Systems

Edona Haxhija

European University of Tirana, Tirana, Albania, Department of Nursing, Faculty of Nursing, "AAB College," Prishtina, KOSOVA
edona.haxhija@universitetiaab.com

Drita Kruja

Marketing & Management Department, Faculty of Economy, Business and Development, European University of Tirana, 1000Tirana, Albania.

Abstract: Nurse burnout is a global issue affecting patient safety, quality of care, and workforce stability, particularly in resource-limited settings such as Albania, where structural constraints and limited institutional support intensify occupational pressures. This systematic review aimed to critically synthesize evidence on how work environment factors, including staffing, leadership, autonomy, and organizational support, influence nurse burnout and well-being across healthcare systems, with particular attention to Albania. The review followed PRISMA 2020 guidelines and included searches of PubMed, Scopus, Web of Science, ScienceDirect, SAGE, and Google Scholar for studies published between 2015 and 2025. Eligible studies were peer-reviewed empirical investigations examining nurse burnout in relation to work environment characteristics and using validated instruments such as the Maslach Burnout Inventory (MBI), Copenhagen Burnout Inventory (CBI), or Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). Two reviewers independently screened records and extracted data. A total of 50 studies met the inclusion criteria. The findings identified heavy workloads, inadequate staffing, limited autonomy, poor leadership, moral distress, and alarm fatigue as the principal contributors to burnout. In contrast, supportive leadership, shared decision-making, professional recognition, resilience-enhancing strategies, and adequate staffing emerged as important protective factors. Burnout was consistently associated with lower patient satisfaction, weaker safety perceptions, and poorer organizational outcomes. While high-income countries more frequently reported administrative burden and intensive care unit overcrowding, Albania and other resource-constrained settings were characterized by structural limitations and leadership-related challenges. The evidence suggests that burnout is a multifaceted yet

preventable phenomenon requiring systemic interventions. Strengthening leadership, staffing capacity, professional autonomy, interdisciplinary collaboration, and psychological support may improve nurse well-being and contribute to higher-quality healthcare delivery, particularly in low-resource contexts.

Keywords: Nurse burnout; work environment; staffing levels; leadership support; healthcare systems.

1 Introduction

Nurse burnout is one of the most pressing workforce challenges facing modern health systems, with significant implications for patient safety, quality of care, and organizational performance [1]. It is characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment resulting from prolonged occupational stress [1]. Rising patient demands, staffing shortages, organizational pressures, and the impact of the COVID-19 pandemic have further increased burnout risk among nurses worldwide [2], [3]. As frontline healthcare providers, nurses are particularly vulnerable to demanding workloads and emotionally challenging work environments [4].

Evidence from multiple countries demonstrates that organizational factors play a central role in burnout. High patient-to-nurse ratios, inadequate staffing, limited autonomy, and ineffective leadership are consistently associated with higher burnout levels and increased turnover intentions [3], [4], [5], [6]. Studies using validated instruments such as the Maslach Burnout Inventory (MBI) [8] and HCAHPS [9] have also shown that unfavourable work environments contribute to lower patient satisfaction, weaker safety cultures, and poorer care outcomes [2], [3],[10],[13]. On the other hand, improvements in leadership practices, psychological safety, and teamwork have been linked to reduced burnout and stronger retention [14].

Although burnout has been widely studied in high-income countries, evidence from Southeast Europe remains limited. Research from Albania highlights persistent challenges including understaffing, weak organizational support, limited professional development opportunities, and leadership-related barriers [15], [16]. These findings underline the need for comparative evidence that incorporates low-resource settings into the broader burnout literature.

Therefore, this systematic review aims to examine work environment factors associated with nurse burnout, explore their relationship with nurse well-being and patient outcomes, and compare trends across different healthcare systems. By synthesizing evidence from 50 empirical studies published between 2015 and 2025, the review seeks to inform policy, practice, and future research on sustainable strategies to improve nurse well-being.

1.1 Aim and Objectives

Aim: To systematically synthesize evidence on how workplace characteristics influence nurse burnout and well-being across healthcare systems and their implications for patient and workforce outcomes.
Objectives:

1. To identify work environment determinants associated with nurse burnout.
2. To examine the relationship between these determinants and nurse well-being outcomes.
3. To evaluate organizational and system-level interventions aimed at reducing burnout and improving care quality.
4. To identify research gaps, particularly in low-resource settings such as Albania, and propose directions for future studies.

2. Theoretical framework and Conceptual foundations

This review is grounded in four complementary theoretical models that explain how work environments influence nurse burnout, well-being, and professional outcomes.

The Job Demands-Resources (JD-R) Model [17] distinguishes between job demands and available resources. Evidence from the included studies indicates that excessive demands combined with inadequate resources contribute to emotional exhaustion and depersonalization [3],[18], making the JD-R model a useful framework for understanding workplace-related burnout.

The Conservation of Resources (COR) Theory [19] suggests that individuals strive to obtain and protect valued resources. Persistent threats to resources such as energy, emotional stability, and professional recognition increase vulnerability to stress. This pattern was evident in studies reporting chronic understaffing and prolonged emotional strain as contributors to burnout [4],[20].

Self-Determination Theory (SDT) [21] further contributes to the conceptual foundation by highlighting the role of emphasizes the importance of autonomy, competence, and relatedness for psychological well-being. Studies showed that limited decision-making authority and weak leadership support increased burnout risk, whereas professional autonomy and opportunities for development promoted better well-being outcomes [22],[23].

The Person-Environment Fit (P-E Fit) Model [24] proposes that burnout occurs when workplace conditions do not align with individual expectations, skills, or values. Findings related to role conflict, insufficient staffing, and limited career development opportunities, particularly in low-resource settings, support this perspective [25], [26].
Together, these models provide a coherent framework for understanding how organizational demands, resource availability, and contextual factors contribute to nurse burnout across diverse healthcare systems, including Albania.

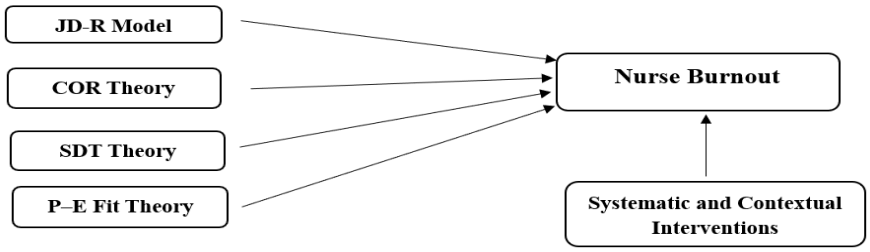

Figure 1.
Theoretical frameworks explaining nurse burnout and the pathway toward system-level interventions.

2 Methodology

This systematic review followed the PRISMA 2020 guidelines to ensure methodological rigor, transparency, and reproducibility. The review process included identification, screening, quality appraisal, and synthesis of studies examining nurse burnout in relation to work environment factors.

2.1 PICOS Framework

Eligibility criteria were developed using the PICOS framework. The population included registered nurses working in clinical settings such as hospitals, ICUs, emergency departments, primary care, and community services. Exposures comprised work environment characteristics including workload, staffing adequacy, leadership, autonomy, teamwork, psychological safety, and organizational support. Comparators included differences in staffing conditions, leadership styles, workplace settings, and healthcare systems. Outcomes focused on burnout measured using validated instruments such as the Maslach Burnout Inventory (MBI) [8], Copenhagen Burnout Inventory (CBI) [27], and HCAHPS [9], as well as emotional exhaustion, depersonalization, personal accomplishment, job satisfaction, and turnover intention. Eligible studies included quantitative, qualitative, and mixed-methods research published between 2015 and 2025.

2.2 Data Sources and Study Selection

A systematic search was conducted in PubMed, Scopus, Web of Science, ScienceDirect, and Google Scholar using combinations of MeSH terms, keywords, and Boolean operators. Studies published between 2015 and 2025 in English or Albanian and involving licensed nurses were considered eligible.
The initial database search identified a total of 380 records. After removing 80 The search identified 380 records. After removing 80 duplicates, 300 titles and abstracts

were screened, resulting in the exclusion of 180 studies. Of the remaining 120 full-text articles assessed for eligibility, 70 were excluded. Consequently, 50 studies met the inclusion criteria and were included in the final synthesis. The selection process is summarized in the PRISMA flow diagram **Figure 2.**

2.3 Data Extraction and Quality Appraisal

Data were extracted using a standardized matrix that recorded study characteristics, sample size, setting, burnout measurement tools, work environment determinants, and key findings. Particular attention was given to validated instruments such as the MBI [8], HCAHPS [9], CBI [27] and SERVQUAL [28].

Methodological quality was assessed independently by two reviewers using the Joanna Briggs Institute (JBI) Critical Appraisal Checklists. Studies were categorized as high (≥70%), moderate (50–69%), or low quality (<50%) according to the proportion of criteria met. Disagreements were resolved through discussion and consensus.

2.4 Synthesis Approach

Given the heterogeneity of study designs and settings, a narrative thematic synthesis was performed. Findings were coded and grouped into key themes, including workload and staffing, autonomy, leadership, organizational support, emotional demands, and burnout outcomes. Themes were subsequently interpreted through four theoretical frameworks: Job Demands-Resources (JD-R), Conservation of Resources (COR), Self-Determination Theory (SDT), and Person-Environment Fit (P-E Fit), allowing comparison across different healthcare contexts, including resource-constrained settings such as Albania.

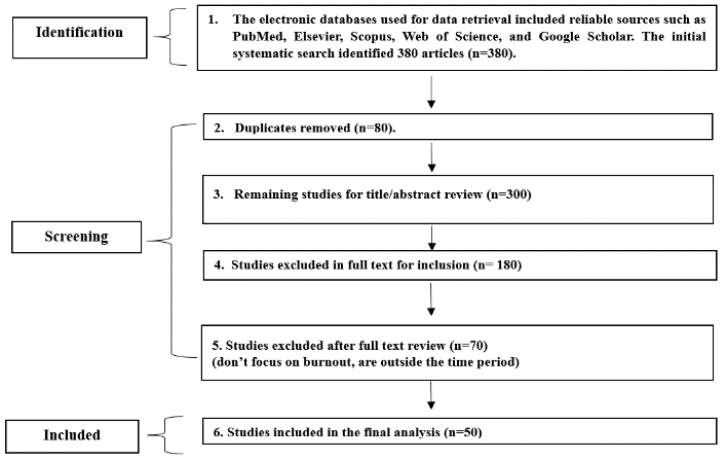

Figure 2.

The study selection process flow diagram for the systematic literature review on nurse burnout.

3 Results

3.1 Characteristics of Included Studies

A total of 50 studies met the inclusion criteria (**Figure 2.**). The largest number originated from the United States (n=22). The study included a variety of geographic contexts, including the United States (n=22) [2], [3], [18], [23], [29], [30], [31], [32], [33], [34], [35], [36], [37], [38], [39], [40], [41], [42], [43], [44], [45], [46], Albania (n = 7) [15], [47], [48], [49], [50], [51], [52], and China (n = 5) [53], [54], [55], [56], [57] representing the largest clusters. Additional studies were conducted in Turkey (n = 3) [58], [59], [60], Thailand (n = 1) [61], Belgium (n = 1) [4], Spain (n = 1) [62], Italy (n = 1) [63] , Greece (n = 1) [64], Birmingham (n = 1) [65], Australia (n = 1) [66] , and several single-country contexts (n = 6) [67], [68], [69], [70], [71], [72].

Most studies were cross-sectional. The Maslach Burnout Inventory (MBI) was the most frequently used instrument (n=19) [8], followed by HCAHPS (n=10) [9]. Seven studies combined MBI and HCAHPS, seven combined MBI with other validated measures including the Hardiness Scale, CD-RISC, and PSS [8],[9],[73],[74],[75], four were literature reviews, and three used alternative tools such as SERVQUAL [28].

3.2 Quality Appraisal Results

Using the JBI Critical Appraisal Checklists, 34 studies (68%) were rated as high quality, 12 (24%) as moderate quality, and 4 (8%) as low quality. High-quality studies generally demonstrated adequate samples, validated instruments (MBI, CBI, HCAHPS), and transparent reporting, whereas lower-quality studies showed limitations in sampling methods, inclusion criteria, or control of confounding variables.

3.3 Main Determinants of Burnout

Across settings, workload and staffing pressures emerged as the strongest predictors of burnout. In the United States, burnout was associated with long shifts, overtime, and high patient-to-nurse ratios [3],[4], while studies from China reported elevated burnout among ICU nurses during and after the COVID-19 pandemic [53], [54], [55], [56], [57]. In Albania, burnout was more closely linked to structural staffing shortages and resource limitations [76]. Better workload distribution was consistently associated with lower burnout and turnover intentions [2].

Emotional labor, including exposure to patient suffering, bereavement, and end-of-life care, was another major contributor to emotional exhaustion and depersonalization [3],[4],[5]. COVID-19-related moral distress, hypervigilance, and infection anxiety further increased burnout risk [18]. Stress of conscience was

linked to higher emotional exhaustion and lower personal accomplishment [64], while alarm fatigue in technologically dense units further exacerbated strain [77].
Leadership and organizational culture played a critical role. Transformational and emotionally intelligent leadership were linked to lower burnout and higher job satisfaction [6],[22],[78], whereas authoritarian or disengaged leadership increased moral distress and psychological strain [20]. Albanian studies highlighted leadership improvement as a priority for reducing attrition and strengthening collaboration [15].
Low professional autonomy and unclear role expectations were associated with higher emotional exhaustion and reduced personal accomplishment [23], [30], whereas empowerment initiatives, shared governance, and clear role definitions promoted psychological safety and lower burnout [25],[26].

3.4 Burnout Symptoms and Patient Experience

Emotional exhaustion and depersonalization were the most frequently reported burnout dimensions among MBI-based studies [8]. Higher burnout levels were associated with absenteeism, poorer perceived care quality, and increased turnover intention [5], [22]. Younger and less experienced nurses often reported lower personal accomplishment, particularly in environments with limited recognition [64]. Additional consequences included anxiety, reduced resilience, and lower self-efficacy [20], [79].
Studies combining burnout and patient-experience measures consistently demonstrated that higher burnout was associated with poorer communication, lower responsiveness, and reduced patient satisfaction [2],[3],[6]. Conversely, interventions targeting leadership, teamwork, and communication improved both nurse well-being and patient-reported outcomes [13],[63].

3.5 Contextual Differences and Protective Factors

Burnout patterns varied across healthcare systems. In high-income countries, burnout was commonly linked to administrative burden, ICU overload, and operational inefficiencies [3], [4], [6], [78]. In Albania and other resource-constrained settings, major contributors included chronic understaffing, limited career advancement, weak organizational support, and shortages of essential resources [15], [80]. Cultural norms also influenced burnout experiences, with collectivist cultures showing greater vulnerability to moral distress [23].
Organizational interventions were generally the most effective protective strategies. Improved staffing, equitable workload distribution, transparent communication, flexible scheduling, and supportive management consistently reduced burnout [5],[18],[22]. Individual-level approaches such as resilience training, peer mentoring, and mindfulness also demonstrated benefits [20], [81]. Leadership-centered interventions, including shared governance and participatory decision-making, improved retention and reduced burnout [63],[78]. Across studies, there

was broad agreement that interventions should be adapted to local system constraints, particularly in low-resource settings such as Albania [15].

4 Discussion

This review synthesized evidence from 50 studies across diverse healthcare systems and identified consistent links between work environment conditions, nurse burnout, patient outcomes, and organizational performance. Overall, burnout emerged as a predominantly organizational and systemic phenomenon rather than solely an individual problem.

4.1 Integration with Theoretical Frameworks

The findings strongly support the Job Demands-Resources (JD-R) model, with workload intensity, inadequate staffing, and operational inefficiencies consistently associated with emotional exhaustion and job dissatisfaction [2], [18], [40], [47]. Resource scarcity, including high patient acuity, limited personnel, and administrative burden, further intensified burnout and compromised care quality [44], [56].

The Conservation of Resources (COR) [19] was reflected in studies showing that chronic understaffing, weak managerial support, and limited recognition depleted psychological and professional resources, increasing stress and burnout. Conversely, supportive leadership, effective communication, and recognition promoted resilience and reduced burnout [31],[36],[39],[59].

Findings also aligned with Self-Determination Theory (SDT), as professional autonomy, competence development, and supportive relationships protected against burnout. Institutional support during crises [51] and interventions such as mindfulness, resilience training, and mentorship enhanced coping capacity and motivation [60].

Evidence relating to the Person-Environment Fit (P-E Fit) model highlighted how role conflict, stress of conscience, and unclear responsibilities increased burnout risk [58], [62], [64], whereas empowerment and professional development improved personal accomplishment [24], [30], [34].

4.2 Comparing Countries

Although burnout was observed across all settings, contributing factors differed by context. In high-income countries, burnout was commonly associated with alarm fatigue, ICU overload, documentation burden, and managerial fragmentation [4],[6],[77], leading to emotional exhaustion and lower patient satisfaction [3].

By contrast, studies from low- and middle-income countries emphasized chronic staffing shortages, limited managerial support, and restricted career opportunities

[15],[20]. Albanian studies specifically highlighted organizational fragmentation, underfunding, and weak governance structures [15], [16]. In China and other Asian settings, hierarchical management, ICU pressures, and pandemic-related stressors contributed to particularly high burnout levels [5], [18], [78].

4.3 Burnout and Patient Outcomes

Consistent evidence linked burnout to poorer patient outcomes. Studies using MBI and HCAHPS showed that higher burnout was associated with poorer communication, lower responsiveness, and reduced patient satisfaction [2],[3],[6]. Conversely, improvements in leadership, teamwork, and communication enhanced patient-reported outcomes [63], reinforcing the broader relationship between workforce well-being and healthcare quality [13].

4.4 Mitigation Strategies

A key finding was that organizational interventions were more effective than individual coping strategies. Improved staffing, equitable workload distribution, flexible scheduling, and participatory governance consistently reduced burnout [5],[18]. Leadership development programs emphasizing emotional intelligence and transformational leadership also improved retention and reduced emotional exhaustion [22],[78].

Individual interventions, including mindfulness, peer support, and resilience training, were beneficial but showed greater effectiveness when supported by favourable organizational conditions [80],[82]. These findings support integrated, multi-level approaches to burnout prevention.

4.5 Cultural and Contextual Influences

Cultural norms influenced both the experience and expression of burnout. Collectivist cultures often emphasized duty and emotional restraint, increasing vulnerability to moral distress and depersonalization [23]. These findings highlight the need for context-sensitive interventions, including stronger leadership transparency and interdisciplinary collaboration in Albania and greater professional autonomy in more hierarchical healthcare systems.

4.6 Research Gaps and Future Directions

Important gaps remain in the literature. Intervention-based studies, particularly in low- and middle-income countries, remain limited, while the lack of longitudinal research restricts understanding of burnout trajectories over time. Qualitative evidence from Southeastern Europe is also scarce, and leadership and governance factors in resource-constrained systems remain insufficiently explored. Future

studies should incorporate patient-related outcomes and employ longitudinal and mixed-method designs to evaluate context-sensitive interventions and their long-term impact.

4.7 Implications for Policy and Practice

The findings highlight the need for structural reforms focused on workforce capacity, professional autonomy, leadership development, and career progression opportunities. In low-resource settings such as Albania, addressing staffing shortages, workload inequalities, and organizational limitations will be essential for improving retention, nurse well-being, and patient care quality.

4.8 Strengths and Limitations

A major strength of this review is the synthesis of 50 studies from diverse healthcare contexts and the integration of four theoretical frameworks (JD-R, COR, SDT, and P-E Fit). The use of validated instruments, including MBI, HCAHPS, CBI, SERVQUAL, and resilience-related scales, further strengthened the analysis.
However, most intervention studies originated from high-income countries, limiting generalizability to low-resource settings. The predominance of cross-sectional studies restricted causal inference, while the inclusion of only English- and Albanian-language publications may have excluded relevant evidence. Variability in methodological quality across studies should also be considered when interpreting the findings.

Conclusion

This systematic review of 50 empirical studies demonstrates that nurse burnout remains a significant challenge driven primarily by organizational and systemic factors. Excessive workloads, understaffing, moral distress, and weak leadership consistently emerged as key contributors to emotional exhaustion and reduced professional well-being [3], [4], [15], whereas supportive leadership, professional autonomy, positive team environments, and resilience-promoting initiatives were associated with lower burnout and improved retention [22], [78].

The findings further show that burnout affects not only nurses but also patient outcomes. Studies using MBI and HCAHPS consistently linked higher burnout levels to poorer communication, reduced responsiveness, and lower patient satisfaction, while interventions that strengthened leadership and teamwork improved both staff and patient outcomes [2], [13], [63].

Important contextual differences were observed across healthcare systems. High-income countries frequently reported administrative burden and ICU overload as major stressors, whereas resource-constrained settings such as Albania faced challenges related to staffing shortages, limited career development opportunities,

and insufficient managerial support [16], [20]. These differences highlight the need for context-specific interventions.

This review indicates that sustainable reductions in burnout require system-level action. Strengthening staffing capacity, leadership, professional autonomy, and psychologically supportive work environments should be prioritized. Although individual approaches such as resilience training and peer support remain valuable, their effectiveness is greatest when embedded within broader organizational reforms. Addressing burnout as a structural issue is therefore essential for improving nurse well-being, retention, and patient care quality.

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