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REVIEW ARTICLE

NURSE BURNOUT AS A PUBLIC HEALTH ISSUE AND ITS IMPACT ON PATIENT CARE QUALITY. A NARRATIVE REVIEW

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ABSTRACT

Occupational burnout among nurses is a significant public health issue. It affects both nurses' well-being and the quality of patient care. The aim of this narrative review is to provide a comprehensive synthesis of four key aspects of occupational burnout among nurses, namely its prevalence, determinants, consequences for patient care and mental health, and available prevention strategies. Literature was identified through searches of PubMed and Google Scholar. Articles published in English between 2015 and 2026 were reviewed and selected according to predefined inclusion and exclusion criteria. Burnout develops through the interaction of organizational, psychosocial, and individual factors. The most important contributors include work overload, staffing shortages, low autonomy, psychosocial stress, personality traits, and health status. Higher burnout levels are associated with increased medical errors, patient falls, and missed nursing care. Burnout also contributes to lower patient satisfaction and poorer perceived quality of care. Prolonged stress increases the risk of depression, anxiety, sleep disturbances, reduced psychological resilience, and intentions to leave the profession, negatively impacting nurses' quality of life and social functioning. Effective preventive and therapeutic strategies include mindfulness-based programs, cognitive-behavioral therapy, physical exercise, and resilience training. These interventions may be delivered both in person and digitally. Their effectiveness improves in supportive environments with allocated participation time and leadership engagement. Interventions at individual, team, and system levels reduce emotional exhaustion and depersonalization, enhance staff well-being, and improve patient safety. In the context of a global nursing shortage and increased workloads following the COVID-19 pandemic, multi-level strategies to prevent occupational burnout are essential for protecting nurses' mental health and maintaining high-quality healthcare. The review highlights the importance of multi-level preventive interventions to reduce burnout and improve healthcare outcomes.

Keywords: *Maslach Burnout Syndrome, nursing workforce, clinical outcomes, psychosocial interventions, occupational stress*

INTRODUCTION

Nurse burnout constitutes a significant problem in modern healthcare systems and is increasingly recognized as a public health challenge. Nursing work involves high psychological and physical demands. Nurses are responsible for patients' lives and frequently function under conditions of chronic stress and staff shortages. The phenomenon of professional burnout (also referred to as job burnout, burnout syndrome, or occupational burnout) was first described in the 1970s, although it is believed to have existed much earlier. Its lower prevalence at that time did not attract significant attention from researchers. The term was first defined by Herbert Freudenberger in his article "Staff burnout", published in 1974 in the Journal of Social Issues. He described burnout as "a state of extreme exhaustion resulting from excessive demands on the energy and all resources available to an individual" [1]. Burnout is a chronic state of work-related stress. It contributes to decreased engagement, emotional exhaustion, and dissatisfaction with professional responsibilities [2]. According to Christina Maslach, professional burnout is a syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. It may occur in individuals working under prolonged occupational stress. Today, this phenomenon is recognized as a significant health and social issue, affecting both individual quality of life and organizational functioning and efficiency [3]. Burnout is a multidimensional process that can manifest across various aspects of individual functioning. According to Christina Maslach's concept, three core components of this phenomenon can be distinguished:

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- Emotional exhaustion – considered the most visible and often the first symptom of burnout. It manifests as a sense of profound mental fatigue, lack of energy to perform professional duties, and difficulty coping with prolonged stress.
- Depersonalization – the next stage, associated with the development of a detached, often cynical attitude toward others, such as colleagues or patients. This may lead to treating them impersonally, which negatively affects interpersonal relationships in the workplace.
- Reduced personal accomplishment – involves a perception of low effectiveness in one's professional activities. The individual experiences decreased job satisfaction, may doubt their competencies, and this, in turn, leads to reduced motivation and work performance [3, 4].

Although the Maslach Burnout Inventory (MBI) and the three-dimensional model of burnout proposed by Christina Maslach remain the most widely used framework in burnout research, other conceptualizations and measurement tools have also been developed and applied in the literature. These include the Copenhagen Burnout Inventory (CBI), which distinguishes between personal, work-related, and client-related burnout, and the Oldenburg Burnout Inventory (OLBI), which conceptualizes burnout in terms of exhaustion and disengagement. The use of different theoretical models and instruments across studies reflects the heterogeneous nature of burnout research and contributes to variability in reported prevalence and outcomes among nurses. These instruments are well established in the burnout literature. This diversity in conceptual frameworks should be considered when interpreting findings across studies included in this review. Consequently, studies included in this review employ different conceptual frameworks and measurement instruments, which should be taken into account when interpreting and comparing reported findings on nurse burnout.

Nurse burnout represents a significant public health concern affecting both nurses' well-being and the quality of healthcare delivery. Chronic occupational stress contributes to emotional exhaustion and reduced work engagement. It may also impair communication and increase the risk of adverse patient outcomes, including medical errors and missed care. Burnout has also been associated with absenteeism, turnover intention, and workforce shortages, highlighting its systemic impact on healthcare organizations and patient safety [5, 6]. Under conditions of chronic occupational stress, nursing staff more frequently experience decreased engagement, which may result in reduced attentiveness, lower quality of communication with patients, and an increased risk of medical errors [7]. Nurse burnout also has an epidemiological dimension – the prevalence of this phenomenon within the nursing workforce is high, as confirmed by studies conducted in multiple countries, indicating its widespread nature among nurses [8]. Consequently, there is increased absenteeism, staff turnover, and withdrawal from the profession, further exacerbating workforce shortages in healthcare systems [9, 10]. From a public health perspective, the impact of burnout on patient safety is particularly important. Research indicates that higher levels of burnout among nurses are associated with more frequent adverse events, such as medication errors, hospital-acquired infections, and lower patient satisfaction with care [11]. Thus, burnout should be regarded as a risk factor for the deterioration of healthcare quality. In response to the growing scale of the problem, the World Health Organization recognized occupational burnout as a work-related phenomenon included in the International Classification of Diseases (ICD-11). This decision emphasized its importance for public health [12]. This highlights the need for preventive and interventional measures at organizational and systemic levels, such as improving working conditions, providing psychological support, and optimizing the workload of healthcare personnel.

The aim of this review article is to provide a comprehensive analysis of nurse burnout as a public health issue. Specifically, this review examines four key aspects: prevalence of nurse burnout, determinants and contributing factors, consequences for patient care and healthcare systems, including patient safety and service quality, and prevention and intervention strategies aimed at reducing burnout among nurses.

METHODOLOGY OF THE NARRATIVE REVIEW

This narrative literature review was conducted to identify and synthesize current evidence regarding burnout among nurses, its determinants, consequences, and prevention strategies. A literature search was performed in PubMed and Google Scholar. Additional relevant publications were identified through manual screening of reference lists. The search strategy combined keywords and Medical Subject Headings (MeSH) related to the topic, including: "nurse burnout", "occupational burnout", "emotional exhaustion", "depersonalization", "nursing staff", "work-related stress", "mental health", "patient safety", "job satisfaction", and "burnout prevention". Boolean operators (AND, OR) were used to refine the search. The review included publications published between 2009 and 2026 in English or Polish. Original research articles, systematic reviews, and meta-analyses focusing on burnout among nurses were eligible for inclusion. Studies concerning other

healthcare professions without separate analyses for nurses, conference abstracts, editorials, commentaries, and publications lacking full-text availability were excluded. The identified records were screened based on title and abstract, followed by full-text assessment for relevance to the objectives of the review. Particular attention was given to studies examining the prevalence, determinants, consequences, and prevention of burnout among nurses. As a narrative review, this study does not follow formal systematic review procedures such as PRISMA-guided screening or quantitative synthesis.

NURSE BURNOUT – PREVALENCE AND DETERMINANTS

Nurse burnout is a widespread and increasingly recognized phenomenon within healthcare systems. The previously mentioned symptoms of the syndrome – emotional exhaustion, depersonalization, and reduced personal accomplishment – affect a substantial proportion of healthcare personnel, particularly in high-workload units. Among the three dimensions of burnout, emotional exhaustion and depersonalization are the most frequently discussed in the literature [3, 4, 9].

Global studies

Several meta-analyses indicate that the prevalence of burnout among nurses ranges from 11% to 56%. This percentage further increased during the COVID-19 pandemic, largely due to healthcare system overload and workforce shortages [13]. Ge et al. [13] conducted a meta-analysis of studies published between 2012 and 2022 and estimated the global prevalence of burnout among nurses at approximately 30%. The prevalence increased over time, particularly in Europe and Africa. A total of 94 studies reporting burnout prevalence among nurses were included in the analysis. The global mean prevalence was 30%. Subgroup analyses showed that specialization, geographic region, and publication year were the main sources of heterogeneity. Meta-regression indicated a gradual increase in prevalence over the past decade, particularly in Europe, Africa, and among nurses working in obstetrics. No significant changes were observed in intensive care units, oncology departments, or emergency units [13].

Getie et al. [14] analyzed 14 systematic reviews and meta-analyses sourced from various databases. The results indicated that the global prevalence of nurse burnout encompasses three main dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. The highest levels of emotional exhaustion were reported among nurses working during the COVID-19 pandemic. Oncology nurses exhibited the highest rates of depersonalization, while intensive care unit nurses reported the greatest levels of reduced personal accomplishment.

Similarly, Woo et al. [8] reported that approximately one in ten nurses worldwide experienced burnout symptoms. Collectively, the reviewed studies suggest that the nursing work environment carries a substantial risk of occupational burnout. The observed differences are likely related to variations in healthcare systems, nursing specialties, measurement tools, and working conditions across countries [8, 13, 14].

Global analyses further indicate that burnout prevalence and its manifestations vary across geographical regions and healthcare systems. Higher prevalence has been reported particularly in Europe and Africa, suggesting that differences in workforce availability, organizational support, healthcare system capacity, and broader socioeconomic conditions may influence the risk of burnout among nurses [13, 14]. Studies from the United States and low- and middle-income countries similarly point to the role of organizational constraints, staffing shortages, and socioeconomic factors in contributing to burnout among nursing personnel [13, 14].

Studies conducted in Poland

Evidence from European countries confirms that burnout remains a major challenge for the nursing workforce. In Poland, Nalepa et al. [15] focused on analyzing the relationship between shift work and burnout among nurses. The study demonstrated a significant association between shift work and the increased risk of burnout. Nurses working in shift systems, especially night and rotating shifts, more frequently experienced emotional

Table 1. Global prevalence of nurse burnout (systematic reviews and meta-analyses)

Author (year)	Scope	Study type	Main findings
Woo et al. 2020 [8]	Global	Systematic review and meta-analysis	Approximately 11% of nurses worldwide experienced burnout symptoms; prevalence varied across regions and clinical settings.
Ge et al. 2023 [13]	Global	Systematic review and meta-analysis	Burnout prevalence ranged from 11% to 56%, with an increasing trend observed over time, particularly in Europe and Africa.
Getie et al. 2025 [14]	Global	Umbrella review	Emotional exhaustion was the most prevalent dimension of burnout, especially during the COVID-19 pandemic.

exhaustion, depersonalization, and reduced personal accomplishment.

A cross-sectional study conducted in Poland showed that employed in hospitals in the Małopolska region showed that 39% of participants experienced a moderate level of emotional exhaustion, more than 70% presented low levels of depersonalization, and 49% reported reduced personal accomplishment [16].

Research conducted by Łopatkiewicz [17] among psychiatric nurses employed in the Mazowieckie region also demonstrated a substantial risk of burnout. According to the study findings, 51% of respondents experienced emotional exhaustion and 46% reported increased fatigue. Furthermore, education level, age, and professional experience influenced both mental health status and burnout intensity.

Similarly, Rutka et al. [18] found that approximately one-third of nurses working in anesthesiology and intensive care settings reported symptoms of burnout. Moreover, a considerable proportion of respondents perceived their professional group as particularly vulnerable to the development of this syndrome. Despite differences in study populations and clinical settings, the reviewed European studies showed consistent findings. Shift work, high workload, and demanding psychosocial working conditions were repeatedly associated with increased burnout risk [15-18].

The studies summarized in Table 2 demonstrate variability in burnout prevalence across European nursing settings, likely reflecting differences in work organization, clinical specialization, and psychosocial working conditions.

The available Polish evidence suggests that burnout is strongly associated with shift work, psychosocial workload, staffing shortages, and increasing healthcare demands. Although individual characteristics such as age, education level, and professional experience may influence burnout severity, organizational factors consistently appear to exert the strongest impact on nurses' well-being [15-18]. This finding highlights the importance of system-level interventions, with improvements in staffing adequacy, working conditions, and managerial support potentially being more effective than interventions focused solely on individual coping strategies.

FACTORS INFLUENCING OCCUPATIONAL BURNOUT AND PREVENTION STRATEGIES

Overall, burnout appears to result from an interaction between organizational pressures and individual vulnerability rather than being solely an individual psychological problem. Consequently, effective prevention strategies should address both workplace conditions and individual resilience, including workload management, adequate staffing, supportive leadership, and access to psychological support [14, 18]. Burnout develops as a consequence of prolonged exposure to occupational stressors and reflects a combination of organizational and individual risk factors that may reinforce one another. From a public health perspective, understanding these determinants is essential, as nurse burnout affects not only staff well-being but also the quality and safety of patient care.

Organizational factors related to the work environment constitute some of the most important determinants of burnout risk among nurses. These include:

- Work overload and staff shortages – an insufficient number of nurses is associated with higher workloads, chronic physical and emotional stress, and a reduced sense of control over professional tasks [18].
- Low autonomy and limited organizational support – lack of decision-making opportunities, insufficient support from supervisors, team conflicts, and difficult interpersonal relationships have been

Table 2. Nurse burnout in Polish studies

Author (year)	Country	Study design	Population	Main findings
Nalepa et al. 2025 [15]	Poland	Cross-sectional study	Hospital nurses	Shift work was associated with higher levels of emotional exhaustion, depersonalization, and reduced personal accomplishment.
Nowacka et al. 2022 [16]	Poland	Cross-sectional study	Hospital nurses	A substantial proportion of nurses experienced emotional exhaustion and reduced personal accomplishment.
Łopatkiewicz 2020 [17]	Poland	Cross-sectional study	Psychiatric nurses	Burnout symptoms and fatigue were common among psychiatric nurses and were influenced by demographic and professional factors.
Rutka et al. 2024 [18]	Poland	Cross-sectional study	ICU and anaesthesiology nurses	Approximately one-third of nurses reported burnout symptoms and perceived their professional group as highly vulnerable to burnout.

associated with higher levels of burnout among nurses [18, 19].
- Poor work organization – excessive bureaucracy, unclear job responsibilities, shift work, and inadequate logistical or equipment resources are associated with higher levels of occupational stress among nurses [20].

Psychosocial work conditions – factors such as the nurse-to-patient ratio, on-call duties beyond standard hours, and heightened psychosocial demands are associated with an increased risk of burnout [21].

The consistency of these findings across multiple studies suggests that organizational conditions are important and potentially modifiable determinants of burnout. Therefore, interventions targeting workplace organization may contribute more substantially to burnout reduction than interventions focusing exclusively on individual-level factors [18-21]. Excessive workload has been associated with reduced attention, more frequent medical errors, and lower patient satisfaction. These findings suggest a relationship between organizational factors and healthcare quality [18, 21].

Alongside organizational factors, individual predispositions also influence nurses' susceptibility to burnout:
- Psychological resilience and stress coping strategies – individuals with lower resilience or maladaptive coping strategies are more prone to emotional exhaustion and decreased work motivation [22].
- Personality traits and psychophysical health – mental health disorders, chronic fatigue, health problems, and inadequate recovery after work increase the risk of burnout [23].
- Sociodemographic factors – age, work experience, place of residence, and education level may modify burnout risk, although these relationships often depend on other environmental and individual conditions [23].

However, evidence regarding the influence of individual characteristics remains less consistent than findings related to organizational factors. This suggests that personal attributes may modify burnout risk but are unlikely to constitute its primary cause in the absence of adverse working conditions [22, 23].

In addition, nursing work involves several profession-specific stressors that make this professional group particularly vulnerable to burnout:
- Constant patient contact and emotional burden – have been linked to emotional exhaustion and empathy fatigue among nurses [19, 24].
- Shift work and irregular life rhythms – are associated with circadian rhythm disruption, poorer sleep quality, increased psychophysical strain, and a higher risk of burnout [20].
- High responsibility for patients – the need for constant vigilance and rapid decision-making under time pressure has been associated with chronic occupational stress [25].

IMPACT OF BURNOUT ON PATIENT CARE QUALITY

Patient safety is a fundamental principle in the provision of healthcare services, which all healthcare personnel should adhere to [26]. A systematic review encompassing 20 studies confirmed the existence of a relationship between nurse burnout and the quality and safety of healthcare, although a quantitative synthesis of the data to determine the strength of this association was not performed [27]. According to recent research, the proportion of nurses experiencing burnout is higher than in other healthcare professional groups [28, 29]. Several studies have demonstrated that nurse burnout is significantly associated with poorer patient safety and healthcare quality outcomes.

Higher burnout levels have been consistently associated with adverse patient safety and care quality outcomes, including increased medication errors, patient falls, hospital-acquired infections, missed nursing care, and lower patient satisfaction. Burnout has also been linked to poorer self-assessed quality of care among nurses, although evidence does not consistently show an association with standardized mortality rates [6].

Several studies further support the relationship between burnout and patient safety-related outcomes. Ryu et al. [30] demonstrated that burnout among shift-working nurses was negatively associated with patient safety-related outcomes, while coping skills partially mediated this relationship, suggesting that strengthening coping mechanisms may mitigate some of the negative effects of occupational stress. Similarly, Zabin et al. [31] reported a significant association between occupational stress, patient safety culture, and patient safety outcomes, although heterogeneity in study designs and working conditions limited direct comparability.

Beyond direct patient safety outcomes, burnout has also been associated with psychosocial and interpersonal factors relevant to clinical practice. Zhou's [32] review indicated a consistent negative correlation between empathy and nurse burnout, although the strength of this relationship may depend on clinical context and measurement tools. Longitudinal evidence by Dong et al. [33] further confirmed a bidirectional relationship between burnout and empathy, particularly in relation to depersonalization and reduced personal accomplishment, suggesting that persistent burnout is associated with lower empathy levels over time.

Table 3. Association between nurse burnout and patient care quality outcomes

Author (year)	Scope	Study design	Main outcomes assessed	Key findings
Li et al. 2024 [6]	International	Systematic review	Patient safety and quality of care	Higher burnout was associated with more frequent adverse events, missed care, and lower patient satisfaction.
Ryu et al. 2021 [30]	South Korea	Cross-sectional study	Patient safety-related outcomes	Burnout was negatively associated with patient safety outcomes, while coping skills partially reduced this effect.
Zabin et al. 2023 [31]	International	Systematic review	Patient safety culture and outcomes	Occupational stress and burnout were associated with poorer patient safety culture and outcomes.
Dong et al. 2025 [33]	China	Longitudinal study	Empathy and quality of care	Persistent burnout was associated with lower empathy and poorer interpersonal functioning over time.
Mazur et al. 2023 [34] (Selected aspects of patient communication and occupational burnout among nurses working during the COVID-19 pandemic)	Poland	Cross-sectional study	Communication and care quality	Higher burnout levels were associated with poorer communication and reduced care quality indicators.

Communication quality has also been identified as an important correlate of burnout. A nationwide Polish study conducted during the COVID-19 pandemic found that higher burnout levels were associated with poorer communication skills, particularly in relation to psychological distance and emotional deterioration. Notably, communication deficits were most strongly linked to specific burnout dimensions, highlighting the role of interpersonal functioning in occupational well-being [34].

BURNOUT AND MENTAL HEALTH OF HEALTHCARE PERSONNEL

Mental health in the workplace is one of the key factors determining job satisfaction and, consequently, affects employee retention and organizational efficiency [35]. Poor mental health limits an individual's ability to lead an active and fulfilling life. It often coexists with disorders such as depression, anxiety, and chronic feelings of threat [36]. This issue is particularly significant in the healthcare sector, where employees are exposed to high psychological and physical demands. Nurses, as frontline personnel, operate in conditions of constant patient contact and rapidly changing, often stressful clinical situations, which further intensify occupational burdens [37]. Increasing occupational stress among nurses is associated with lower job satisfaction, poorer perceived work quality, and a greater intention to leave the profession, contributing to the ongoing global nursing workforce crisis [38, 39].

In a study by Buivydienė et al. [40], a high level of depression was noted in 2.4% of respondents, while stress affected 1.4%. Lack of social and organizational support has also been associated with increased burnout, poorer mental health outcomes, and higher turnover intention among nurses [41]. Similarly, high burnout levels among nurses have been associated with job dissatisfaction and increased intention to change employment [42]. Negative mental health experiences among nursing staff have been associated with poorer quality of patient care and a higher likelihood of clinical errors [43]. Merkuri et al. [44] noted that burnout is associated with poorer physical and emotional health among nurses, as well as less favorable organizational outcomes.

Today, the quality of nursing care is crucial, serving as a key determinant of patient safety and recovery. Its level is influenced by various environmental factors, including hospital noise [45]. A significant portion of nurses serve as frontline personnel, maintaining direct contact with patients; thus, their actions and decisions are closely related to patient health and safety outcomes, highlighting the importance of civil responsibility in clinical diagnostics [46]. Liang et al. [47] identified 176 articles. High burnout levels were strongly associated with an increased risk of mental health problems. Burnout was linked to a more than sevenfold increase in depression risk and a more than fourfold increase in anxiety and

stress. It was also associated with substantially lower psychological resilience. Moreover, severe burnout was associated with nearly a fourfold higher risk of intending to change jobs compared to remaining in the current position, which in turn was related to the quality of care provided. In 2020, burnout prevalence among nurses in Brazil was reported at 14.3%, with symptoms including irritability, insomnia, anxiety, and social withdrawal, which were associated with reduced work performance and increased interpersonal conflicts [49, 50].

The studies summarized in Table 4 consistently demonstrate that nurse burnout is strongly associated with adverse mental health outcomes, including depression, anxiety, reduced resilience, sleep disturbances, and increased turnover intention.

Nursing is characterized by consistently high occupational demands, which may contribute to cumulative work-related strain and increased vulnerability to stress-related outcomes [48]. Burnout has been associated with reduced quality of patient care, increased risk of clinical errors, higher absenteeism, lower job satisfaction, and interpersonal difficulties in both professional and personal contexts [48]. In addition, evidence indicates that burnout negatively affects nurses' quality of life across physical, emotional, and social domains. Higher levels of burnout have also been linked to poorer sleep quality, including insomnia and reduced sleep duration [48, 51]. Overall, these findings suggest that burnout exerts a multidimensional impact on both professional functioning and personal well-being of nurses.

PREVENTION AND COUNTERACTING BURNOUT

Jiménez-García et al. [52] analyzed a wide range of psychosocial, behavioral, and organizational interventions aimed at reducing burnout among nurses. The reviewed evidence demonstrated that appropriately planned and structured interventions can significantly decrease burnout levels, particularly emotional exhaustion and depersonalization. Programs based on mindfulness and positive psychology, including digital formats, produced especially effective and long-lasting results. Interventions such as yoga, physical exercise, and cognitive-behavioral therapy also reduced stress levels, although these effects were often short-term.

The effectiveness of organizational and team-based interventions depended largely on workplace conditions. Supportive leadership, allocated participation time, and program continuity were

Table 4. Association between nurse burnout and mental health outcomes

Author (year)	Scope	Study design	Mental health outcomes assessed	Key findings
Liang et al. 2025 [47]	Global	Systematic review and meta-analysis	Depression, anxiety, stress, resilience, turnover intention	Burnout was strongly associated with poorer mental health, lower resilience, and increased intention to leave the profession.
Buivydienė et al. 2025 [40]	Lithuania	Cross-sectional study	Depression and stress	Burnout was associated with adverse mental health indicators, including symptoms of depression and stress.
Merkuri et al. 2025 [44]	Europe	Review	Physical and emotional health	Burnout was linked to poorer physical and emotional health as well as unfavorable organizational outcomes.
Ambani et al. 2020 [42] (The nursing practice environment and nurse job outcomes: a path analysis of survey data)	Not specified	Cross-sectional study	Job satisfaction and turnover intention	Higher burnout levels were associated with lower job satisfaction and greater intention to leave the profession.
Vidotti 2018 et al. [51] (Burnout syndrome and shift work among nursing staff)	International	Observational studies	Sleep quality and insomnia	Burnout was consistently associated with poor sleep quality, insomnia, and reduced sleep duration.

identified as particularly important factors contributing to intervention success [52]. Similarly, a scoping umbrella review by Sampedro et al. [53] showed that nurse-focused interventions, especially coping skills training, mindfulness-based interventions, and relaxation techniques, significantly reduced emotional exhaustion and depersonalization These dimensions are closely associated with employment stability, quality of care, and patient safety.

The systematic review by Sharin et al. [54] highlighted the important role of psychoeducational interventions in mitigating burnout among nurses. Both single and combined interventions, particularly those based on mindfulness (MBI) and cognitive-behavioral therapy (CBT), were found to effectively reduce burnout levels. However, the long-term sustainability of these effects remains uncertain and requires further longitudinal research. The authors also emphasized the advantages and limitations of different delivery formats. In-person interventions allow for more individualized support, whereas digital and hybrid solutions improve accessibility and flexibility.

Additional evidence suggests that burnout prevention strategies may also improve broader organizational and patient-related outcomes. Cohen et al. [55] reported that workplace interventions contributed to improved well-being, increased engagement and psychological resilience, and reduced burnout among healthcare workers. However, some studies were limited by methodological constraints, including the absence of control groups and insufficient follow-up monitoring. Results reported by Li et al. [6] further suggest that system-level interventions aimed at reducing nurse burnout may improve patient care outcomes. Likewise, Lee et al. [56] demonstrated in a systematic review and meta-analysis that both in-person and online group interventions may reduce overall burnout levels, emotional exhaustion, and depersonalization among nurses.

INTERVENTIONS FOR PREVENTION AND REDUCTION OF NURSE BURNOUT

The evidence suggests that organizational determinants exert a stronger and more consistent influence on burnout development than individual factors, underscoring the need for system-level preventive strategies. Although individual-focused interventions such as mindfulness-based and cognitive-behavioral approaches may reduce emotional exhaustion and depersonalization, their long-term effectiveness appears limited without supportive organizational conditions.

The studies summarized in Table 5 indicate that both individual- and organizational-level interventions may effectively reduce nurse burnout, particularly emotional exhaustion and depersonalization. However, variability in intervention type and study methodology limits conclusions regarding long-term effectiveness.

System-level and team-based interventions appear to be more effective when implemented in supportive organizational environments characterized by strong

Table 5. Interventions for prevention and reduction of nurse burnout

Author (year)	Scope	Study design	Type of intervention	Key findings
Jiménez-García et al. 2026 [52]	International	Systematic review	Mindfulness-based, behavioral, and organizational interventions	Interventions significantly reduced emotional exhaustion and depersonalization, with the strongest effects observed for mindfulness-based approaches.
Sampedro et al. 2026 [53]	International	Umbrella review	Coping skills training, mindfulness, relaxation techniques	Interventions consistently improved coping capacity and reduced burnout dimensions.
Sharin et al. 2025 [54]	International	Systematic review	Psychoeducational and cognitive-behavioral interventions	Both in-person and digital interventions were effective in reducing burnout, although long-term effects remain uncertain.
Cohen et al. 2023 [55]	International	Systematic review	Workplace and organizational interventions	Organizational interventions improved well-being, resilience, and work engagement while reducing burnout.
Li et al. 2024 [6]	International	Systematic review	System-level healthcare interventions	Reductions in burnout were associated with improvements in patient care outcomes.
Lee et al. 2023 [56]	International	Systematic review and meta-analysis	Group-based interventions	Structured in-person and online interventions significantly reduced burnout and emotional exhaustion.

leadership and protected time for participation. However, the current evidence base remains limited in terms of long-term follow-up, highlighting the need for future research focusing on the sustainability of intervention effects and the identification of mechanisms underlying lasting behavioral and organizational change. Future research should also explore strategies to enhance psychological resilience among nurses and to adapt intervention programs to evolving healthcare work conditions, including increased digitalization and hybrid care models following the COVID-19 pandemic. Overall, evidence supports the implementation of multi-level prevention strategies integrating organizational and individual approaches to improve nurses' well-being, strengthen workforce retention, and enhance overall healthcare quality.

LIMITATIONS

The findings presented in this review should be interpreted in light of several limitations of the available literature. First, the majority of studies examining burnout among nurses are observational and cross-sectional in design, which limits the ability to establish causal relationships between identified risk factors and burnout outcomes. Consequently, although associations between working conditions and burnout are consistently reported, causality cannot be definitively inferred.

Second, most studies rely on self-reported questionnaires, including the Maslach Burnout Inventory and similar survey instruments. Self-reported measures may be affected by recall bias, response bias, and social desirability bias, potentially influencing the accuracy of reported burnout levels.

Third, considerable heterogeneity exists across studies regarding sample characteristics, healthcare settings, countries, and measurement tools, making direct comparisons difficult. Differences in organizational structures, staffing models, and healthcare systems may limit the generalizability of the findings.

Despite these limitations, the reviewed literature consistently demonstrates that burnout among nurses represents a significant occupational and public health concern, warranting further longitudinal and intervention-based research.

This narrative review has several limitations. First, as a narrative review, it does not follow the rigorous methodology of a systematic review, which may increase the risk of selection bias despite the use of predefined search terms and eligibility criteria. Second, the included studies were heterogeneous with respect to study design, healthcare settings, populations, and instruments used to assess burnout, limiting direct comparison of findings. Third, most of the available evidence was derived from cross-sectional studies, which restricts the ability to establish causal relationships between burnout, its determinants, and patient care outcomes. Finally, publication bias cannot be excluded, as studies reporting significant associations may be more likely to be published than studies with null or inconclusive findings.

CONCLUSIONS

Occupational burnout among nurses is a multifactorial and work-related phenomenon driven primarily by organizational and psychosocial conditions, including workload, staffing shortages, shift work, and limited managerial support. This narrative review synthesizes current evidence indicating that burnout represents a systemic occupational risk embedded within healthcare environments rather than an individual psychological problem.

Across the included literature, nurse burnout is consistently associated with a wide range of adverse outcomes. At the individual level, it is linked to poorer mental health, including increased symptoms of depression, anxiety, stress, reduced psychological resilience, sleep disturbances, lower job satisfaction, and higher turnover intention. At the organizational level, it contributes to reduced workforce stability and impaired healthcare system functioning.

Importantly, burnout is also consistently associated with reduced patient care quality, including increased risk of clinical errors, reduced patient safety, and lower patient satisfaction. These findings highlight its dual impact on both healthcare workers and system-level outcomes.

Overall, effective prevention and management of nurse burnout require integrated, multi-level strategies combining improvements in workplace organization with interventions supporting individual resilience. The current evidence base is largely cross-sectional, limiting causal inference and emphasizing the need for longitudinal and intervention-based research to strengthen future recommendations.

Conflict of interest
The authors declare no conflict of interest.

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