ÖSSZEFOGLALÓ KÖZLEMÉNY

Burnout syndrome as a cause of the nursing shortage

DOLAK Frantisek

A kiégésszindróma mint az ápolói létszámhiány oka

ÖSSZEFOGLALÁS

Bevezetés: A kiégésszindróma napjaink ápolói munkájának egyik komoly problémája, és úgy tartják, hozzájárul a jelenlegi ápolóhiányhoz is. A tartósan fennálló munkahelyi stressz rontja az ápolók munkahelyi elégedettségét, valamint testi és lelki egészségét, ráadásul a fluktuáció növekedéséhez is vezethet.
A vizsgálat célja: Áttekinteni azt a jelenlegi tudásállományt, amely az ápolóhiány, a munkahelyi elégedettség, a munkahelyi stressz és a kiégésszindróma közötti összefüggéseket vizsgálja.
Anyag és módszer: A szerző szisztematikus irodalmi áttekintést végzett a PubMed adatbázisban történt keresés alapján. A kutatási kérdést a PECO(T) keretrendszer segítségével fogalmaztak meg. Az elemzésbe 2001 és 2023 között angol nyelven megjelent, lektorált tanulmányokat vont be, a kiválasztás pedig a PRISMA irányelveket követte. A kezdetben talált 286 publikációból végül 33 tanulmány felelt meg a bevonási kritériumoknak és került be a végleges elemzésbe.
Eredmények: Az elemzés szerint a munkahelyi stressz, a kiégésszindróma és az alacsony munkahelyi elégedettség jelentősen hozzájárul ahhoz, hogy az ápolókban felmerüljön a munkahely- vagy akár a pályaelhagyás gondolata. A legfontosabb kockázati tényezők között szerepelt a túlterheltség, a létszámhiány, a műszakos munkarend, a munka érzelmi megterhelő jellege, valamint a nem megfelelő szervezeti támogatás. Ezzel szemben védőhatásúnak bizonyult a reziliencia, a szociális támogatás, a jó munkakörnyezet, a szakmai önállóság és a támogató vezetői hozzáállás.
Következtetés: A kiégésszindróma alapvetően befolyásolja az ápolói szakma stabilitását. Megelőzése komplex megközelítést kíván: idetartozik az egészségügyi dolgozók lelki egészségének támogatása, a reziliencia fejlesztése, a megfelelő munkakörülmények megteremtése, valamint tudatos szervezeti intézkedések bevezetése. Ha sikerül hatékonyan megelőzni a kiégést, az hozzájárulhat az ápolói létszám stabilizálásához és az egészségügyi ellátás színvonalának emeléséhez.

Kulcsszavak: fluktuáció, ápolóhiány, munkahelyi stressz, munkahelyi elégedettség, ápoló, kiégésszindróma

Burnout Syndrome as a Cause of the Nursing Shortage

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SUMMARY

Introduction: Burnout syndrome poses a significant challenge in contemporary nursing and is considered a contributing factor to the current nursing personnel shortage. Long term exposure to occupational stress can negatively affect nurses' job satisfaction and mental and physical health, and can also lead to increased staff turnover.
Aim: To analyze current knowledge on the relationship among the nursing shortage, job satisfaction, occupational stress, and burnout syndrome.
Methods: A systematic review was conducted based on a systematic search of scholarly publications in the PubMed database. The PECO(T) framework was used to formulate the clinical question. The analysis included peer reviewed studies published in English between 2001 and 2023. The study selection process followed PRISMA principles. Of the 286 publications initially identified, 33 studies met the inclusion criteria and were incorporated into the final analysis.
Results: The analysis showed that occupational stress, burnout syndrome, and low job satisfaction are significant factors contributing to nurses' intention to leave their job or profession. The main risk factors identified were high workload, insufficient staffing, shift work, emotional demands of the job, and inadequate organizational support. In contrast, key protective factors included resilience, social support, a high-quality work environment, professional autonomy, and supportive management.
Conclusion: Burnout syndrome is a major factor influencing the stability of the nursing workforce. Its prevention requires a comprehensive approach that includes supporting the mental health of healthcare workers, fostering resilience, ensuring high quality working conditions, and implementing systematic organizational measures. Effective prevention of burnout syndrome can help stabilize the nursing workforce and improve the quality of healthcare delivery.

Keywords: staff turnover, nursing shortage, occupational stress, job satisfaction, nurse, burnout syndrome

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Introduction

Burnout syndrome represents a serious psychosocial problem that most commonly occurs in professions involving intensive work with people. It is defined as a consequence of chronic occupational stress that has not been successfully managed and is characterized primarily by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment (Vargas-Benítez et al., 2023). Individuals who are highly committed, responsible, and perfectionistic (i.e., those who place excessive demands on themselves, have difficulty resting, and often perceive professional setbacks as personal failures) are more susceptible to developing burnout. The risk is further increased by longterm interpersonal conflicts, the overlap of work and family burdens, multiple job commitments, and a belief in one's own indispensability (Pugnerová, 2019).

Healthcare is among the first fields in which burnout syndrome was systematically described. General nurses working in oncology, intensive care units, psychiatry, neurology, or palliative care were found to be particularly vulnerable groups (Pugnerová, 2019). Current studies confirm that nurses are at substantial risk of developing burnout due to the nature of their profession, especially as a result of excessive workload, staff shortages, shift work, frequent exposure to patient suffering and death, and insufficient organizational support (Nagle et al., 2024; Şenol Çelik et al., 2024). An important contributing factor is also the inadequate preparation of healthcare workers for the profession's psychological demands and the absence of workplace support mechanisms. When a high workload is combined with unsupportive leadership or an unfavorable work climate, the likelihood of burnout increases substantially (Pugnerová, 2019).

Burnout syndrome has serious consequences not only for nurses themselves but also for the healthcare system as a whole. It is associated with deteriorating mental and physical health among healthcare workers, reduced quality and safety of care, lower job satisfaction, and an increased intention to leave the job or the profession (Getie et al., 2025).

According to the World Health Organization (WHO), the global nursing workforce comprised approximately 29.8 million nurses in 2023. Despite an increase in the nursing workforce over recent years, the world continues to face a shortage of approximately 5.8 million nurses, with projections suggesting that this deficit may decrease to around 4.1 million by 2030 if current investments in education, recruitment, and retention are sustained (WHO, 2025).

Conversely, factors that may reduce the risk of burnout include supportive management, a positive work environment, professional autonomy, opportunities for further education, and adequate staffing levels (Şenol Çelik et al., 2024). In the context of the current global nursing shortage, preventing burnout syndrome is considered a priority in modern healthcare management and health policy (Getie et al., 2025).

Aim of the study

To analyze how levels of job satisfaction, occupational stress, and burnout contribute to the nursing shortage.

Methodology

The methodological approach of this review study was based on the recommendations of *Gulpinar & Gucal Guclu* (2013), who describe the fundamental steps of systematic review processing. The process included formulating the clinical question, searching for relevant sources, critically appraising the identified studies, and synthesizing the findings.

To formulate the clinical question, the PECO(T) framework was used, enabling a systematic definition of the **p**opulation, **e**xposure or setting, **c**omparator, expected **o**utcomes, and the **t**emporal aspect of the research. This approach contributes to a more precise delineation of the research problem and facilitates subsequent retrieval of scholarly sources (Aslam & Emmanuel, 2010) **(Table 1)**.

Table 1. Clinical question according to the PECO(T) framework

Component	Definition
P (population)	nurse/nurses
E (exposure/setting)	hospital or healthcare facility
C (comparator)	adequate staffing levels
O (outcomes)	job satisfaction, occupational stress, and level of burnout
T (time)	2001–2023

Based on the formulated clinical question, the following keywords and their combinations were used: *(*"nurse" OR "nursing staff") AND ("burnout" OR "burnout syndrome") AND ("job satisfaction" OR "occupational stress") AND ("nursing shortage" OR "turnover intention"). Selecting appropriate keywords is a crucial step in identifying relevant literature, as it substantially influences the scope and quality of the retrieved sources (Pearce et al., 2018). In developing the search strategy, principles for

transforming key semantic and concept-related variants were also applied since these can enhance the effectiveness of identifying relevant studies (Nagai & Noguchi, 2002).

The clinical question was defined as follows: *What is the relationship between job satisfaction, occupational stress, level of burnout, and the nursing shortage?*

Identification of relevant studies

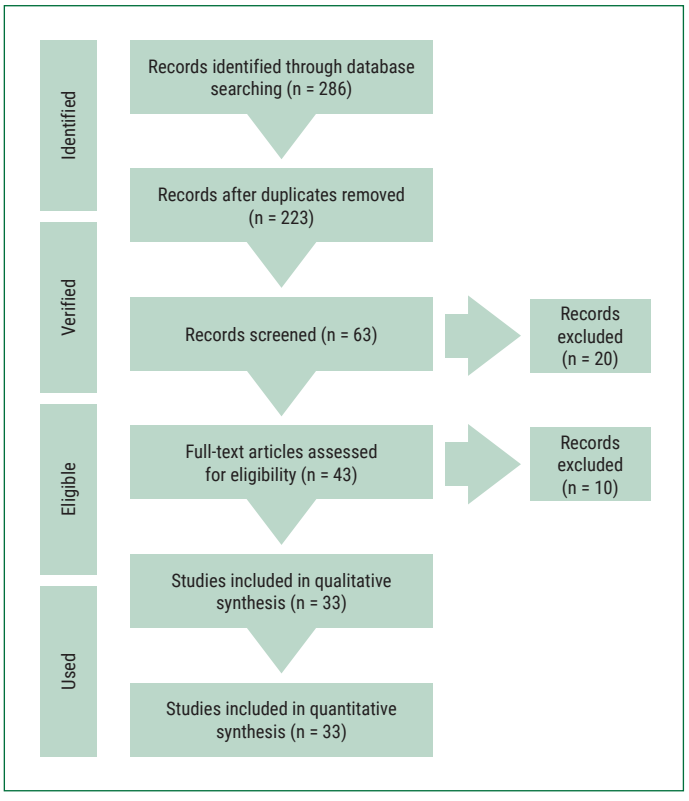
The identification of relevant studies was based on the fourstep methodology for systematic literature searching described by *Wilding, Colicchia, and Strozzi* (2012). Only studies meeting the following criteria were included in the review: (1) the publication was available in English, (2) it was a peerreviewed scholarly source, (3) it was published between 2001 and 2023, and (4) at least one of the predefined keywords appeared in the article title, abstract, or keyword list.

The search for scholarly studies was conducted in PubMed. PubMed was selected because it is one of the largest and most widely recognized biomedical databases, providing comprehensive coverage of nursing, medical, and healthcare research. Considering the focus of the review on nursing practice and burnout, PubMed was considered an appropriate primary source of evidence. All stages of the literature search, screening, eligibility assessment, and data extraction were conducted by a single reviewer. To minimize selection bias, predefined inclusion and exclusion criteria were applied consistently throughout the review process. The search strategy was developed using predefined keywords and their combinations, as the appropriate selection of keywords is a critical prerequisite for effectively identifying relevant scientific publications (Pearce et al., 2018). Study identification and selection were visualized using the PRISMA Flow Diagram, an internationally recognized standard for transparent reporting in review studies (Page et al., 2021).

Quality assessment and selection of results

Based on the predefined criteria, a total of 286 studies were identified in PubMed (n=286). After an initial screening focused on topic relevance and publication language, 223 studies were excluded, and 63 publications were retained for further evaluation.

Figure 1: PRISMA Flow Diagram



Subsequently, the abstracts of the individual studies were analyzed. At this stage, studies that did not examine the relationship among nurse burnout, job satisfaction, and intention to leave were excluded. Attention was directed primarily toward studies examining factors influencing the development of burnout and its impact on nurses' professional lives.

In the next phase, the full texts of potentially relevant studies were assessed. Publications lacking information on study design, research objectives, methodology, evaluated outcomes, the professional group of respondents, or sample size were excluded. After applying all criteria, 33 scholarly publications were included in the final analysis. The entire study selection process is illustrated in the PRISMA diagram **(Figure 1)**.

Synthesis and interpretation of data

A total of 33 publications providing relevant insights into nurse burnout were included in the final analysis. Based on the content analysis, three main thematic areas were identified: (1) stress, burnout, and nurses' intention to leave the workplace; (2) nurses' resilience to stress and burnout; and (3) the relationship between burnout and job satisfaction. The subsequent synthesis of findings enabled a comprehensive evaluation of current knowledge regard-

ing the causes, manifestations, and consequences of burnout in the nursing profession.

Stress, nurse burnout, and intention to leave the workplace

The studies analyzed confirm that occupational stress and burnout pose significant challenges within the nursing profession and are among the main drivers of nursing workforce turnover. The most frequently reported stressors include high workload, staff shortages, shift work, emotionally demanding patient care, and difficulties balancing work and personal life (Nowrouzi et al., 2015; Lim et al., 2010). Prolonged exposure to these factors leads to burnout, reduced job satisfaction, and an increased intention to leave the profession (Coomber & Barriball, 2007; Phillips, 2020).

Nursing shortages and burnout are closely interconnected phenomena. Increasing work demands and understaffing contribute to higher levels of stress and psychological exhaustion, which in turn promotes nurse turnover and further exacerbates the staffing crisis in healthcare (Tamata & Mohammadnezhad, 2023). A substantial proportion of early-career nurses consider leaving the profession within the first years of practice, with stress, workload, and dissatisfaction with working conditions cited as key reasons (Flinkman et al., 2008).

The prevalence of burnout varies by clinical setting. Elevated risk has been repeatedly identified among nurses working in oncology, psychiatry, and other highly demanding specialties (Sherman et al., 2006; Maila et al., 2020). Evidence also shows that longer shifts are associated with higher levels of occupational stress and lower job satisfaction (Hoffman & Scott, 2003). Cultural and organizational factors across countries further influence burnout levels, work engagement, and intention to leave (Ohue et al., 2021).

Nurses' resilience to stress and burnout

Resilience is considered one of the most important protective factors against burnout. A systematic review by *Yu et al.* (2019) demonstrated that higher levels of resilience were associated with lower levels of stress, burnout, and posttraumatic symptoms, while social support, job satisfaction, and effective coping strategies function as significant protective factors. Similarly, *Guo et al.* (2018a, 2018b) found that resilience substantially reduces the risk of burnout and serves as an important predictor of nurses' psychological well-being.

Consequently, increasing attention has been directed toward interventions that support mental health and stress management. Positive outcomes have been reported for online stress-management programs (Hersch et al., 2016), digital support interventions using text messaging (Kelly et al., 2021), mindfulnessbased programs (Server et al., 2022), and comprehensive resilience training initiatives (Mealer et al., 2014). Social support, empowerment, and the creation of a healthy work environment also play a crucial role in preventing burnout (Bartram et al., 2014).

Burnout and nurses' job satisfaction

Job satisfaction is one of the key factors influencing the stability of the nursing workforce. Evidence shows that higher workload, stress, and burnout are strongly associated with nurses' intention to leave their jobs (Phillips, 2020). Conversely, professional autonomy, adequate staffing levels, effective teamwork, and managerial support contribute to higher job satisfaction and retention (Dilig-Ruiz et al., 2018).

A significant relationship between staffing shortages, job dissatisfaction, stress, and burnout has been documented, particularly in oncology and hematology settings (Gi et al., 2011; Gribben & Semple, 2021). In addition to working conditions, job satisfaction is shaped by individual factors such as work values, professional commitment, and generational differences (Wilson et al., 2008; Hegney et al., 2006; Jenaro et al., 2011).

The most frequently cited reasons for nurses leaving their positions include dissatisfaction with salary, psychological demands of the job, limited opportunities for professional development, and insufficient employer support (Gardulf et al., 2005; DiMattio et al., 2010). At the same time, evidence indicates that work environments that promote professional growth, recognition, and adequate working conditions can substantially enhance job satisfaction, reduce burnout, and increase nurses' willingness to remain in the profession (Rambur et al., 2005; Lavoie-Tremblay et al., 2014).

Discussion

The findings of this review confirm that burnout is a major challenge in contemporary nursing and a contributing factor to the nursing workforce shortage. Although the shortage of nurses arises from a combination of individual, organizational, educational, and systemic influences, available evidence indicates that occupational stress and burnout are among the most frequently identified drivers of nursing staff turnover (Tamata & Mohammadnezhad, 2023).

Job satisfaction is a key determinant of healthcare workers' motivation, organizational commitment, and willingness to remain in their positions. *Blaauw et al.* (2013) note that job satisfaction significantly affects not only workforce stability but also the quality of care provided. The findings of this review confirm that burnout and job satisfaction are closely interconnected phenomena. Declining job satisfaction is often accompanied by higher levels of stress, emotional exhaustion, and subsequent consideration of leaving the profession.

Prolonged exposure to occupational stress has adverse effects not only on nurses' psychological well-being but also on their physical health. *Kane* (2009) highlights the association between stress and the development of psychosomatic symptoms, while *Jovanovic and Jovanovic* (2004) point to the relationship between workload and the onset of cardiovascular diseases, particularly arterial hypertension. These findings suggest that the consequences of burnout extend beyond work performance and may significantly affect the overall health of healthcare professionals.

Strengthening the preparation of future nurses during their education is a key component in preventing burnout. *Křivohlavý* (2010) emphasizes the importance of acquiring stressmanagement strategies and developing psychological resilience. *Riley et al.* (2019) similarly stress the need to understand factors influencing nursing students, noting the relationship between stress and students' professional commitment. In this context, simulation-based education can be considered a valuable tool, as it enables safe practice of demanding clinical situations and supports the development of both professional and psychosocial competencies. *Neugebauer et al.* (2022) report that simulation training enhances students' readiness for clinical practice and effectively integrates theoretical knowledge with practical skills.

In addition to individual factors, it is essential to consider the organizational aspects of the work environment. Leadership style has a significant impact on job satisfaction and stress levels. *Pishgooie et al.* (2018) found that transformational and transactional leadership styles can reduce nurses' occupational stress and their intentions to leave their jobs. Effective leaders foster trust, open communication, professional development, and employee participation in decision-making processes. At the same time, it is important to recognize that nurse managers are also exposed to elevated levels of occupational stress. *Labrague et al.* (2019) identified heavy workload, staffing shortages, and limited financial resources as major sources of stress among nursing managers.

The findings also indicate that burnout prevention must be embedded within a broader organizational strategy. One-time interventions focused solely on individuals may be insufficiently effective unless accompanied by systemic measures to improve working conditions. An important component of prevention is fostering reflection in general and selfreflection among healthcare professionals in particular. *Marková* (2010) emphasizes that nurses need regular feedback on the quality of their work, their strengths, and opportunities for professional development. At the same time, it is essential to create a work environment that supports employee motivation. *Ježorská et al.* (2014) note that key motivational factors include a positive workplace climate, recognition of work performed, and high-quality interpersonal relationships.

Based on the studies analyzed, burnout is a significant risk factor for the stability of the nursing workforce. Its prevention requires a comprehensive approach that includes mental-health support, resilience development, effective managerial leadership, systematic improvement of the work environment, and support for nurses' professional growth. Only a combination of individual – and organizational – level measures can reduce the prevalence of burnout and help stabilize the nursing workforce.

Conclusion

Burnout syndrome represents a serious professional and societal problem that significantly affects nurses' job satisfaction, mental health, and the stability of the healthcare system. The findings of this review confirm that stress and burnout are strongly associated with nursing staff turnover and the deepening shortage of nurses.

The analysis of available literature shows that the development of burnout syndrome is conditioned by an interplay of individual, organizational, and systemic factors. The most significant include high workload, insufficient staffing, shift work, inadequate managerial support, and long-term exposure to emotionally demanding situations. In contrast, protective factors include job satisfaction, social support, a high-quality work environment, and greater resilience.

From a practical perspective, it is essential to focus not only on individual stressmanagement strategies but especially on fostering a healthy work environment that supports professional development, teamwork, and employees' psychological well-being. Preventive measures should also include regular monitoring of occupational stress and burnout using standardized assessment tools.

Burnout syndrome should not be regarded as an inevitable part of the nursing profession. It is a pre-

ventable phenomenon, and its early identification and systematic management can improve nurses' quality of working life, stabilize the nursing workforce, and ensure safe, high-quality patient care.

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