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Factors Associated with Burnout and Turnover Intention among Healthcare Providers: A Review

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***Abstract*: This paper presents a review on the factors associated with burnout and turnover intention among healthcare providers.**

***Keywords*: Burnout, Turnover intention, Job satisfaction, Healthcare providers.**

1. Introduction

In the healthcare sector, stress reactivity has been closely linked to a range of both work-related and non-work-related variables. When examining occupational factors, it is essential to consider the complex and multifaceted nature of professional interactions within the healthcare environment. The literature consistently highlights concern over the contributors to burnout among healthcare workers. A meta-analysis identified several key work-related factors, including poor work-life balance, emotional strain related to patient care, medical specialty, level of professional training, and academic qualifications. In contrast, stressors unrelated to the workplace—such as financial difficulties, demographic characteristics, and pre-existing health conditions—were also found to significantly influence stress levels [1].

Burnout is the product of exhaustion induced by sustained physical and/or mental exertion or overwork, resulting in cynicism and loss of a sense of efficacy [2]. Service-oriented work with high levels of stress, such as hospital-based healthcare, is prone to issues of burnout. Indeed, research prior to and during the COVID-19 pandemic indicates alarming reports of burnout symptoms among healthcare workers (e.g. 30%–60% among frontline medical staff) due to untenable working conditions [3], [4].

Acute burnout, unaddressed, can result in long-term mental health problems (Anzaldua & Halpern, 2021). Burnout is associated with diminished work performance and job satisfaction and increased turnover of employees [5], [6].

Turnover is the voluntary or involuntary separation between an employee and employer and it is higher among workers facing considerable stress. An employee's intent to leave an employer is referred to as turnover intention, which is predictive of actual turnover [7].

A study estimated the yearly cost of burnout and turnover among healthcare professionals (HCPs) in the United States and reported the associated costs of physician turnover alone to be approximately $4.6 billion [8]. This figure is prone for further increases after the COVID-19 pandemic.

The current review highlight aspects of interaction between burnout and turnover intention among HCPs.

2. Methods

A comprehensive literature review was conducted using PubMed database, Scopus, and Web of Science. Published papers in English language were all considered with no specific time window for the search applied. Article with more sophisticated designs and articles which are more commonly mentioned in the literature were prioritized. The following keywords were searched for: "Burnout", "Turnover", "Turnover intention", "Associated factors", "Healthcare providers", and "Intervention". The current comprehensive narrative review was outlined in broad terms in order to build a sequence of evidence that covers the multifaceted relationship between burnout and turnover intention among HCPs.

3. Review

A. Burnout

1) Definition and Dimensions

Burnout is a widely studied phenomenon that represent a heavy burden on healthcare. It affects both patients and healthcare providers (HCPs). It is well-defined that burnout is a collective term that encompasses three dimensions: emotional exhaustion, depersonalization, and personal accomplishment. Numerous factors have been significantly linked to the incidence and/or severity of burnout and its definitive domains. However, a consensus definition of burnout is still a debate. A widely accepted debate was proposed by Maslach et al. as 'A work-related syndrome characterized by chronic exhaustion, cynicism, and reduced professional efficacy' [9]. The burnout-associated exhaustion goes beyond ordinary tiredness or occasional fatigue. Rather, it is a deep, ongoing depletion of energy that leaves individuals feeling persistently drained and physically incapacitated. The second aspects is depersonalization, which is mainly a growing emotional distance from one's professional life and a shift toward negative, often dismissive attitudes toward coworkers and the work itself. The definition also includes an affection of the

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individual's professional efficacy. This domain of burnout is when a person begins to doubt their own abilities and feels increasingly ineffective, as if their efforts no longer lead to meaningful accomplishments or success in their role [10]. While this definition may be considered the most accepted, efforts are still in the seek of a consensus definition. A proposed definition of burnout was 'In a worker, occupational burnout or occupational physical AND emotional exhaustion state is an exhaustion due to prolonged exposure to work-related problems' [11]. The search for a consensus definition may have distracted some efforts from the actual study of burnout and its associated burden in different target populations [12].

Burnout only got so much consideration due to its marked effect on individuals. As a chronic stress syndrome, regardless of what definition one finds appropriate, burnout may be viewed as a continuum. That is why unaddressed burnout is a local irritant that may find its way through long-term cognitive problems and long-lasting unfavorable mood [13]. Hence, the sequence of burnout domains is important to keep in mind. When an individual feels notable exhaustion upon minimal work-related effort, this marks the beginning of emotional exhaustion. This may be considered an in fulfilled withdrawal from work-related activities from an already stressed individual [14]. Another potential starting point is self-alienation. When a stressed individual starts adopting a minimal-exposure approach towards other coworkers this may be considered depersonalization. This artificial inter-personal distance may be developed either purposefully or unconsciously to keep the emotional interaction with other coworkers as minimum [15]. The third and last potential trigger point of burnout [as per the three-domain definition] is the feeling of professional inefficacy as a source of stress. This perceived low performance may be related to both the job demands and/or the individual's inherent motivation. Such a feeling may serve as a cascade initiation point leading to full-spectrum burnout [14], [16].

Burnout is typically evaluated through a structured methodology that relies on rigorously tested psychological measurement tools. The most widely recognized instrument in this domain is the Maslach Burnout Inventory (MBI), developed by Maslach and Jackson [17]. This self-report questionnaire presents a series of statements reflecting individuals' emotional responses and attitudes toward their work environment. The MBI breaks burnout down into three core components: emotional exhaustion, depersonalization, and a diminished sense of personal achievement. Maslach and Jackson's multidimensional framework has become the dominant model in burnout research and remains the most frequently cited in scholarly literature [18], [19].

2) Factors Associated with Burnout in Healthcare Professionals

Identifying potential triggers of stress—whether they stem from the work environment or external sources—is a crucial step in mitigating the risk of burnout. Early detection of these contributing factors serves not only as a predictive tool for assessing vulnerability but also as a preventive strategy. In more advanced cases, this awareness can help alleviate psychological strain and support recovery efforts [20].

A range of factors—including exhaustion, depression, anxiety, low job satisfaction, substance misuse, social stigma, and younger age—have been identified as significant predictors of burnout. This condition often progresses rapidly and can lead to severe short-term outcomes, including suicidal ideation [21], [22]. Recent findings indicate a troubling rise in stress levels among young healthcare professionals, with some experiencing multiple depressive episodes each week [23].

Additionally, emerging research suggests that cognitive traits, particularly emotional intelligence, may influence susceptibility to burnout. Individuals with higher emotional intelligence appear better equipped to manage stress and may be more resilient in high-pressure environments [24].

Gender appears to play a role in burnout vulnerability among healthcare professionals, with female workers showing a heightened predisposition. Research indicates that female nurses, particularly those working in ambulance services, are more prone to physical exhaustion and emotional detachment from their duties compared to their male counterparts or physicians operating under similar conditions [25]. Furthermore, another study highlights the elevated risk of burnout among female resident doctors who consistently work over 80 hours per week, regardless of their medical specialty.[26]

The geographical setting of a workplace—urban versus rural—also plays a meaningful role in the onset of burnout. Studies suggest that healthcare professionals working in urban environments are more susceptible to burnout and are more likely to consider leaving their jobs. Several urban-specific stressors contribute to this trend, including the mismatch between low wages and high living costs, heavy traffic congestion, and heightened professional competition [27].

A 2020 meta-analysis conducted in China categorized stressors affecting medical personnel into three broad domains: systemic (including factors like the work environment, healthcare infrastructure, and prevailing medical culture), personal (such as maladaptive perfectionism, excessive altruism, and self-critical tendencies), and interpersonal (encompassing levels of empathy, experiences of marginalization, and ethical distress). When traits like empathy, altruism, and emotional attachment are pushed to extremes in professional settings, they can lead to significant emotional and cognitive strain, often resulting in long-term psychological harm [28].

Recent research has increasingly focused on cognitive emotion regulation strategies, with particular attention given to the role of empathy. Empathizing operates as a double-edged sword: while it can enhance professional performance by fostering compassion, it may also diminish job satisfaction by intensifying feelings of helplessness and guilt. In clinical settings, unregulated or excessive empathy can lead to emotional exhaustion and a sense of detachment from patients. This not only undermines the caregiver–patient relationship but also negatively impacts safety, well-being, and individual resilience [29], [30].

Burnout affects all categories of healthcare workers, though the degree and nature of its impact vary across roles. Findings differ between studies regarding which groups are most

affected—whether doctors, nurses, orderlies, or technical support staff such as registrars, secretaries, and electricians. One study found that nurses in emergency departments experience greater physical exhaustion than doctors, although both groups show similar levels of emotional detachment and declining commitment to their work [25]. Other research highlights that subordinate medical staff working under resource constraints and in poor conditions often report a lower quality of life, leading to emotional detachment, cynicism, and eventual burnout [31]. Additional data suggest that nurses and doctors are more susceptible to burnout than auxiliary staff, likely due to their frequent emotional engagement with patients and their families [32], [33]. Moreover, high rates of physical exhaustion and professional disengagement have been observed among nurses and orderlies, often attributed to their constant exposure to systemic inefficiencies and administrative shortcomings.[34] Some studies also examine burnout levels in hospital settings, pointing to contributing factors such as poor management, constant oversight by superiors, excessive working hours, and strained peer relationships. Interestingly, medical teams that foster strong collaboration and trust in teamwork—regardless of workload or even in high-stress environments like ambulance services—tend to report lower burnout rates [35], [36].

A special but significant contributor to burnout was the COVID-19 pandemic. Systematic reviews have confirmed the profound and damaging effects the pandemic had on those involved in managing this unprecedented crisis [37], [38]. While much of the available data comes from studies involving healthcare staff in general, it is frontline professionals—particularly those in emergency departments and intensive care units—who faced the greatest exposure to critically ill patients, heightened risk of infection, and extreme work-related stress. Among these, anesthesiologists are especially vulnerable due to the intense demands and high-stakes responsibilities of their specialty [39]. As such, working on the front lines during the pandemic likely served as a major additional stressor, significantly increasing the likelihood of developing burnout syndrome.

B. Turnover Intention

1) Significance

Turnover intention refers to the conscious and deliberate decision of an employee to consider leaving their organization [40]. It serves as a key indicator of whether healthcare professionals (HCPs) are planning to exit their current roles. Turnover itself can be directed toward various targets—such as leaving a specific unit, healthcare facility, or even the profession entirely. Both theoretical and empirical research consistently identify turnover intention as one of the strongest predictors—and often the immediate precursor—of actual turnover [41]. Because of the strong correlation between intention and action, researchers frequently use turnover intention as a proxy for actual turnover behavior. A rising turnover intention among HCPs signals that they are approaching the decision to leave their workplace. Since each healthcare facility operates with a unique team and system, the departure of an experienced professional imposes a significant burden. Replacing them not only incurs costs but also requires time for the new staff member to adapt to the environment and workflows [42].

The COVID-19 pandemic triggered a global surge in turnover intention among HCPs. In Canada, nearly 25% of respiratory therapists reported contemplating leaving their roles due to moral distress in the spring of 2021 [43]. Similarly, during the latter half of 2020, one in three nurses considered leaving their organization, while one in four contemplated exiting the profession entirely [44] In the United Kingdom, nearly half of the 124 advanced practice nurses surveyed during the first three months of the pandemic expressed intentions to leave their jobs [45]. In Lebanon, two out of five pharmacists surveyed between December 2020 and January 2021 reported plans to quit within the following year [46]. A study by Falatah [47] comparing pre-pandemic and pandemic-era literature on nurse turnover found a marked increase in turnover intention during the COVID-19 crisis. However, direct comparisons were complicated by inconsistencies in how turnover intention was defined and measured. Supporting this, cross-sectional data revealed that nurses reported significantly higher turnover intention during the pandemic compared to their retrospective assessments of the pre-pandemic period [48].

2) Associated Factors

Numerous demographic, mental, and work-related factors have been evidently linked to increased turover intention among HCPs. Elevated turnover intention among HCPs during the COVID-19 pandemic may be partially explained by the widespread increase in moral stressors that HCPs faced during the pandemic period. For example, HCPs described working with a shortage of adequate personal protective equipment, working understaffed with increased workloads, witnessing patients die alone, having to provide patient care that appeared futile, having to remove potentially life-saving resources from one patient to aid a patient with better odds of survival, potentially exposing loved ones to the virus, a perceived lack of support from organizations and governments, and having to take on clinical responsibilities outside of one's scope of practice due to staffing issues and high caseloads. In this context, HCPs appeared to be at elevated risk for moral distress and/or moral injury during the pandemic period [49]-[51].

A large-scale Korean study involving nearly 2,700 physicians reported a turnover intention rate of 30.5% within a two-year period [52]. The study identified several significant predictors of turnover intention, including gender, age, medical specialty, type of healthcare facility, duration of current employment, weekly working hours, and satisfaction with income. The odds of expressing turnover intention were 46.2% higher among male physicians compared to females, and 55.5% higher among those aged 30–39 compared to those aged 40–49. Physicians in support medicine had 28.9% lower odds of turnover intention compared to those in internal medicine. Employment at tertiary hospitals was associated with more than 200% increase in turnover intention compared to clinics, while working in convalescent hospitals reduced the odds by 34.0% compared to general hospitals. Longer tenure and greater

income satisfaction were both negatively associated with turnover intention, whereas longer working hours were positively associated. The study emphasizes the need for fair compensation, transparent performance evaluations, and reasonable working hours, alongside broader institutional and policy reforms, to improve workplace conditions and reduce physician turnover.

One of the most consistently reported factors to be associated with turnover intention is poor job satisfaction. A study conducted on Korean nurses found that the average turnover intention score was 3.12 out of 5, while job satisfaction averaged 2.41 out of 4 [53]. Key factors influencing turnover intention included marital status, religious affiliation, employment type, and work area. The study also revealed a significant negative correlation between job satisfaction and turnover intention $p < 0.001$, indicating that higher job satisfaction is associated with lower intent to leave. Among the variables examined, job satisfaction, marital status, and employment status collectively accounted for 19.8% of the variance in turnover intention.

Another study emphasized that enhancing job satisfaction—particularly in areas such as salary, promotion opportunities, and job security—is essential for reducing turnover intention among primary care physicians [54]. The authors recommended that governments increase financial investment in primary care infrastructure, especially in underdeveloped regions, and implement reforms to improve incentive structures. Suggested policy measures include establishing a social pension system for village-level doctors and expanding career advancement opportunities for township-level physicians. The study also highlighted the influence of rapid urbanization, which may either increase workloads or create new career prospects, both of which can significantly impact turnover intention among primary care doctors.

In fact, there is a dedicated model that explains the interplay of different variables underlying the emergence of turnover intention in HCPs. The so called 'Employee Retention Triad' underscores the importance HCPs perceived organizational support and their individual dedication for their healthcare facilities in promotion of HCPs retention rather than turover. The interesting point is that the whole model, which is dedicated for turnover intention, could be viewed as a mirror for the other face of job satisfaction. The traid model states that interpersonal justice is associated with affective commitment to one's organisation, which is negatively associated with turnover intention. Interpersonal justice was also found to be directly and negatively associated with turnover intention. Affective commitment to one's organisation was also found to mediate the relationship between interpersonal justice and turnover intention. The study of people's perceptions of fairness in organisations is referred to as organisational justice. Affective commitment, defined as emotional attachment, is often discussed in reference to one's organisation, sometimes referred to as organisational commitment [55].

C. Association between Burnout and Turnover Intention

Low work domain *experience* is significantly correlated with increased stress reactivity. Information from the literature supports our findings, showing the role of tenure and level of professional training in delaying the onset of burnout [56]. Along with increased experience in the field and older age, seniority is correlated with lower burnout rates [57], [58]. Evidence suggests that experienced nurses perceived less emotional exhaustion and depersonalization compared to the novice nurses. This is main reason for the healthcare facilities to attempt to decrease the turnover intention of the nurses and using retention strategies [59].

The influence of different burnout dimensions on turnover intention varies in strength. For instance, a meta-analysis reported an effect size of 0.46 for emotional exhaustion and 0.29 for professional efficacy in relation to turnover intention [60]. Another meta-analysis found that the overall relationship between burnout and turnover intention is substantial, classifying it as a large effect according to Cohen's criteria [61].

In a study involving 386 general practitioners (GPs), 10.4% exhibited high turnover intention, while 31.9% showed a moderate level of intent to leave. The average turnover intention score among participants was 2.24 on a 6-point scale. Notably, over 80% of the GPs reported experiencing moderate to high levels of work-related stress. The areas of greatest dissatisfaction included salary, benefits, training opportunities, and career advancement. Several factors—such as professional title, practice setting, and work intensity—were found to be significantly associated with turnover intention ($P < 0.05$). Work-related stress was not only directly linked to turnover intention [$P < 0.001$], but also indirectly influenced it through its negative impact on job satisfaction ($P < 0.05$). Additionally, job satisfaction itself had a strong direct negative effect on turnover intention ($P < 0.001$) [62]. Since burnout is a chronic stress syndrome, such associations between stress, job satisfaction, and turnover cannot be ignored. Interestingly, another study reported that having a pronounced work-life imbalance was indeed associated with worse burnout and poorer job satisfaction. However, no significant association with turnover intention was detected [63].

A study conducted during COVID-19 reported other interesting findings. Authors found out that more optimistic social outlook was linked to lower levels of perceived stress, suggesting that either maintaining a positive perspective during difficult times can buffer against stress, or that lower stress levels may foster a more hopeful view of society and personal well-being. Moreover, seeking emotional support was associated with higher—not lower—stress, likely reflecting that individuals under greater stress are more inclined to seek emotional support. Other coping strategies, such as taking proactive steps to improve the situation, turning to religious or spiritual beliefs, and engaging in self-care, did not show significant associations with stress, burnout, or turnover intention. Health-related issues were positively correlated with both stress and burnout, though not with turnover intention. Meanwhile, a lower quality of work life was strongly associated with increased burnout symptoms and a higher likelihood of

turnover intention, but, somewhat unexpectedly, not with elevated stress levels. Additionally, individuals who perceived the pandemic as having a more negative impact on their well-being, or who reported greater COVID-19-related concerns, experienced higher levels of stress and burnout—but these perceptions did not significantly influence their intention to leave their jobs [64]. Such partial correspondence, not perfect alignment, between burnout, turnover intention, and job satisfaction is what makes this an alluring area of research. Aforementioned reports may be confounded by a yet-to-be-discovered factor that mediates the relationship between burnout and turnover intention in HCPs besides job satisfaction.

D. Mitigation Strategies and Organizational Interventions

Burnout has important repercussions on the quality of the medical act, healthcare costs and individual health. The medical staff burnout syndrome has a number of negative consequences for patients as well, such as: increasing the risk of medical errors, jeopardizing the relationship with the patient and, consequently, compromising the quality of the medical act. Interventions to prevent the onset of burnout syndrome, with its screening from the early stages remaining the fundamental objectives in the therapy plan, targeting both general strategies and principles of individualized approaches [20], [65].

The significant consequences of burnout for physicians, healthcare organizations, and patients have led to growing emphasis on physician well-being and the development of strategies to prevent or mitigate burnout. These strategies generally fall into two main categories: individual-focused and organization-focused interventions. Individual-level approaches often involve cognitive-behavioral techniques aimed at strengthening job-related skills, enhancing communication, and improving personal coping mechanisms. In contrast, organizational strategies may range from relatively simple adjustments—such as modifying work schedules or reducing workload intensity—to more comprehensive reforms in the structure and functioning of healthcare practices and institutions [66].

1) Organizational Leadership

The role of organizational leadership on tackling burnout is paramount. Leadership qualities, attributes, and management styles have a direct impact on physician satisfaction and burnout. Transformational qualities and skills such as mentorship, coaching, instilling pride, discussing values and purpose, praising accomplishments, and identifying individual needs and talents result in the highest rates of physician satisfaction [67], [68]. Notably, these are skills that can be learned. To effect long-lasting and meaningful reductions in burnout, it is necessary and crucial for organizational leadership to demonstrate a commitment to creating a culture of wellness, model change, and address the problem of burnout at the systemic and organizational level. Effective organization-level interventions focus on key workplace drivers, including workload and job demands, operational efficiency and resource availability, autonomy and flexibility, work-life balance, social support and collegiality, alignment between personal and organizational values, and a sense of purpose in one's work [69].

2) Organizational Intervention

Workload, Job Demands, Efficiency, and Resources:

High-intensity workloads—marked by long working hours, frequent on-call shifts, and a high volume of patient consultations—are consistently identified as major contributors to burnout. This trend is evident among plastic surgeons, where increased hours, more frequent call duties, and limited vacation time correlate with higher burnout rates [70]-[72]. In addition to workload, inefficiencies in resource utilization often led to an increase in administrative burdens and routine tasks, which are also strongly linked to burnout symptoms. The use of electronic health records, while intended to streamline care, has instead introduced more regulatory demands without corresponding improvements in patient engagement, workflow efficiency, or system usability [73]-[75].

Control, Flexibility, and Work-life Integration:

One of the most significant contributors to physician burnout is the lack of control over one's schedule. Among physicians in the Kaiser healthcare system, limited autonomy and decision-making power in the workplace emerged as the strongest predictor of burnout [76]. Research suggests that physician well-being is less about the workload itself and more about the perceived ability to manage it [77].

Providing flexibility in work effort, scheduling, and shift start times can empower physicians and reduce burnout risk. This principle also applies to residents, as higher rates of disengagement and burnout have been observed among plastic surgery residents who are excluded from decisions affecting their training programs [78]. Residents should be allowed to make scheduling requests, have access to accommodations for overnight shifts, and experience progressive clinical autonomy. Institutional policies should also address critical areas such as call schedules, vacation and sick leave, childcare, parental leave, and cross-coverage, as work-life conflict may be more directly linked to burnout than workload alone [69].

Innovative solutions like time-banking systems can help foster a culture of flexibility and collaboration. A pilot program at Stanford University rewarded faculty for time spent on often-overlooked tasks—such as teaching, service, and clinical duties—with practical benefits aimed at improving work-life integration. These included both professional support (e.g., grant writing, lab management, public speaking) and personal services (e.g., house cleaning, laundry, meal delivery). The program significantly improved faculty well-being and institutional satisfaction, leading to the development of a similar initiative for residents [79].

Social Support and Community at Work:

Social support plays a vital role in preventing burnout and enhancing both physical and mental well-being. The quality and quantity of one's social connections influence health outcomes through behavioral, psychological, and physiological mechanisms. A longitudinal study involving nearly 7,000 individuals over a nine-year period found that those with stronger social networks had significantly longer lifespans—regardless of socioeconomic status, smoking habits, alcohol consumption, or physical activity [80]. It is believed that robust

social support helps buffer the effects of stress by lowering cortisol levels, which may explain the association between social ties, longevity, and sustained cognitive function in later life. In healthcare settings, particularly among residents, a strong sense of social belonging has been shown to improve well-being and reduce attrition, underscoring the importance of fostering community and meaningful relationships within the workplace [81], [82].

Mentorship has been demonstrated to cultivate professional relationships, build camaraderie, promote professional development, and increase job satisfaction. Other interventions to decrease isolation and build community include social events, celebration of shared accomplishments, team building exercises, faculty and resident retreats, and optimization of shared workspaces [83].

Residencies should also create an environment that fosters psychological safety, including support in handling moral distress, swift response to concerns regarding unprofessional conduct, and access to mental health services [69]. Shame-based learning, such as verbal abuse, mocking, exclusion, public embarrassment, and intimidation, is not conducive to learning. Shame reactions are described as sentinel emotional events, having devastating consequences resulting in social isolation, disengagement from learning, impaired wellness, unprofessional behavior, and impaired empathy [84]. A survey of Canadian plastic surgery residency programs revealed that a majority of trainees had experienced shaming in the operating room, leading to diminished confidence, feelings of professional isolation, impaired job performance, and symptoms of depression [85]. The findings underscore the importance of fostering a respectful and supportive learning environment. Surgical educators who cultivate a culture of collegiality, accountability, and mutual respect are more effective in helping residents learn and perform at their best.

4. Conclusion

This paper presented an overview on the factors associated with burnout and turnover intention among healthcare providers.

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