Burnout in Medicine

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Introduction

Burnout is a prevalent and important occupational hazard, experienced by a multitude of physicians across specialties and throughout the career trajectory. The term burnout is used to characterize a complex syndrome of emotional exhaustion, depersonalization, and self-perceived low personal accomplishment. Burnout results from prolonged stress in the workplace [1] and is considered specific to occupations requiring intense interactions with other people [2].

History and Definition of Burnout

The concept of burnout could be found in a vast literature, as the term "to burn out" appears to have been used also by Shakespeare, among other authors [3]. The first appearance of the term burnout in the scientific world has been attributed to the psychoanalyst Herbert Freudenberger [4] who in 1974 described a condition he observed among volunteers in free clinics for drug abuse. This concept was then

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further and independently characterized by Christina Maslach and colleagues, beginning in the 1970s. Maslach published innovative research, describing the syndrome of burnout within human service-oriented professions (e.g., clergy, police, social workers, teachers, medical) [5], and developed a self-reporting tool to assess burnout. The complexity and heterogeneity of factors contributing to burnout result in varying manifestations of symptoms among individuals, though physicians are at higher risk for overall burnout compared to general population controls, with burnout nearly two times as prevalent among physicians versus other US workers [4]. Though this chapter will focus on the concept of burnout in terms of its connotations in the medical field, implications and consequences overlap with other entities, especially compassion fatigue and depression, and the burnout experience among physicians in various specialties. It is important to note that burnout impacts clinicians in various roles (e.g., nurses, advanced practice providers, respiratory therapists) and practice settings. In the 1980s, the initial primarily qualitative research became more empirical, and the now famous Maslach Burnout Inventory (MBI) survey was used to quantitatively assess the syndrome across caregiving professions. In the 1990s and beyond, burnout research has grown in terms of the number and style of measurement tools as well as the scope of occupations being evaluated (e.g., education, medicine, law, law enforcement, ministry).

Burnout is seen as the final step in a progression of unsuccessful attempts to cope with a variety of negative stress conditions [6]. The WHO does not recognize burnout as a medical condition but as an occupational phenomenon.

In fact, ICD-11 [4] states that "burnout is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It's characterized by 3 dimensions: (1) Feelings of energy depletion or exhaustion; (2) Increased mental distance from one's job, or feeling of negativism or cynicism related to one's job; (3) Reduced professional efficacy." The ICD-11 continues: "Burnout refers specifically to phenomena in the occupational context and should not be applied to describe experiences in other areas of life."

Different tests have been developed to assess burnout, among which the Maslach Burnout Inventory (MBI) is the most widely used. It is a self-report, comprising 22 items measured on a 7-point Likert scale considering three domains, according to the burnout model developed by Maslach [7] and parallels the ICD-11 definition:

1. Emotional exhaustion (EE): the exhaustion domain describes a condition of fatigue, loss of energy, and debilitation.
2. Depersonalization (DP): also named cynicism, this dimension is characterized by irritability, withdrawal, and issues in the relationship with the clients.
3. Personal accomplishment (PA): also named inefficacy, this dimension refers to a diminished productivity, low morale, and inability to cope.

A burnout profile is characterized by high levels of emotional exhaustion and depersonalization and low levels of personal accomplishment.

The Experience of Burnout and Its Tragic Implications

The experience of burnout has a negative impact on a physician's personal and professional health and well-being. Burnout is associated with increased risk for cardiovascular disease and shorter life expectancy, problematic alcohol use, broken relationships, depression, and suicide [8]. A number of studies have found that physician burnout is adversely associated with quality and safety (e.g., medical error), patients' satisfaction with their care, professionalism, communication, turnover or early retirement of impacted clinicians, and healthcare costs. Collective drivers of physician burnout include loss of autonomy, decreased meaning in work, decreased control, and inefficient use of time due to increased administrative requirements, sleep deprivation, isolation, large debt burden (from educational loans), excessive workloads, and lack of work-life integration [8].

Burnout and Overlap with Depression and Compassion Fatigue

In addition to elevated risk for occupational burnout, the prevalence of depression or depressive symptoms is alarmingly high in physicians [9]. Despite debate about overlap, depression and burnout are distinct entities, with discrete measurement tools. Though burnout should not be overlooked as a modifiable risk and aggravating factor for depression, conceptualizing burnout as depression risks missing the opportunity to address its organizational, structural, and societal drivers [10].

Burnout, depression, and work-related stress display some correlations and overlaps, but they are three different constructs. On the one hand, symptoms of burnout and aspects of an individual life easily resemble depression, but on the other hand, burnout is more context-specific: in fact, it arises from distress in the workplace and exerts effects in the work environment [11]. Furthermore, burnout dimensions as measured by the MBI do not correspond to depressive symptoms: while correlations were observed between depression and EE, this was not the case for depression and PA, and only a minor correlation was observed between depression and DP [12]. However, depression and burnout are indeed two related constructs, as it is possible that burnout may lead to an increased risk for developing mental disorders: a longitudinal study observed that burnout predicted the risk of taking antidepressants in an 8-year follow-up [13]. Work-related stress when prolonged leads to burnout; however occupational stress may arise in every kind of profession, while burnout is considered more specific to jobs where interpersonal relationships, and especially relationships of care, have a great role.

The Importance of Measuring Burnout

There is considerable variability in how researchers studying physicians, medical students, and trainees have defined and measured burnout. Variability in measurement tools can have significant implications, including underestimation of the rate

of burnout across populations [14]. A meta-analysis on 65 studies from 1991 to 2001 on physician burnout observed that emotional exhaustion appeared to be the core dimension of burnout [15]; the authors observed both regional differences between American and European physicians and differences between outpatients and inpatients specialties in terms of factors contributing to emotional exhaustion. However, in a systematic review of 182 studies between 1991 and 2018, there was substantial disagreement in the literature on what constituted burnout, finding at least 142 unique definitions for meeting overall burnout or burnout subscale criteria [16]. In a 2015 longitudinal study, Shanafelt and colleagues found the prevalence of physicians reporting burnout symptoms to be 54.4% [9]. The 2019 Medscape National Physician Burnout, Depression & Suicide Report found similar rates, ranging from 32% to 54%, varying by specialty [17]. Most studies of burnout use surveys in which respondents self-report their feelings, attitudes, beliefs, and behaviors relating to their work. The Maslach Burnout Inventory, demonstrated to be reliable and valid and extensively studied, is the gold standard in burnout assessment for healthcare professionals. Other tools capture distinctive psychosocial, functional, and occupational measures. Examples of measurement tools specifically designed for physicians are the Mini-Z, offered by the American Medical Association, and the Stanford Professional Fulfillment Index, which has questions on both burnout and well-being.

Differences in prevalence of burnout exist among medical specialties, with higher prevalence often seen among physicians working on the "front lines" of patient care [4, 17]. It has been theorized that physicians are especially disposed to burnout due to traits, such as compulsiveness, precision, high expectations, and compassion, which facilitate success in medical education, training, and practice [18]. These traits, in addition to tolerance for a professional environment that stigmatizes self-care, illness, and perceived weakness and promotes denial of vulnerability, perfectionism, isolation, and delayed gratification, simultaneously create chronic emotional and interpersonal stressors that contribute to burnout. Theoretical frameworks now more explicitly integrate both individual and situational factors [19]. There is a growing appreciation that drivers of physician burnout are not solely individual but often system-based stressors within the healthcare industry such as the electronic medical record, payment systems that are burdensome, loss of autonomy and control over workplace issues by physicians, and other cultural, economic, and environmental factors.

Burnout Considerations Among Distinct Specialties

Oncology

The prevalence of burnout among oncologists is similar to that of US physicians overall, and the satisfaction with career and specialty choice is higher [20]. Long hours, the administration of often highly toxic therapeutics, and regular exposure to

death and suffering create unique stressors for medical oncologists. There is an incremental relationship between time devoted to patient care and oncologists' burnout. Among medical oncologists, many of the risk factors for burnout differ between practice settings (academic vs. private) [20–22]. Given projected shortages of medical oncologists in the upcoming decade, studies evaluating interventions that may sustain career satisfaction and/or reduce burnout are needed in this population.

Palliative Care

Stressors unique to pain/palliative care physicians include regularly facing difficult symptoms of terminal and serious progressive illnesses, distressed patients and families, stigmatization, suffering, and death. Despite these challenges, studies show that the frequency of emotional exhaustion and depersonalization are lower among palliative care physicians than in populations interacting with similar patients, such as oncologists [23–25]. Physicians in palliative care have a high degree of job satisfaction; they report being less overwhelmed, fewer conflicts, being less worried about drug toxicity, to have access to better resources, and to have better communication skills with patients [24].

General Internal Medicine and Hospitalists

General internists suffer higher rates of burnout and lower satisfaction with work-life balance than most specialties, and overall rates of burnout among hospitalists and outpatient general internal medicine physicians are reported to be similar [26]. The field of hospital medicine has experienced rapid growth, with an increasing number of hospitalists in academic medical centers. The rapid evolution of the field creates potential complications for academic success and career promotion and sustainability of academic hospitalists. In addition to these distinctive complications, stressors such as amount of control over work schedule (particularly reporting less protected time for scholarly activity, increased clinical time on nonteaching services) and level of support from organizational leaders are predictors of overall low job satisfaction among hospitalist physicians [27]. Oncology hospitalists provide acute care for seriously and terminally ill cancer patients in the hospital. Oncology hospitalists thus face similar emotional stressors as those of oncologist and palliative care physicians. Importantly, compared to other physician groups, hospitalist physicians are more likely to agree that their work schedule leaves enough time for their personal life and family [26], which suggests positive implications for quality of life in this population.

Surgical Specialties

Surgical training and practice present significant challenges that can lead to substantial personal distress for the individual surgeon and their family. Across multiple subspecialties, surgeons experience a high frequency of burnout and low mental quality of life (time for personal/family life), though most report being generally satisfied with their career and specialty choice [28]. Surgical oncologists are not immune to the previously discussed stressors nor the psychiatric morbidity and burnout associated with providing care to patients with cancer. Surgical oncology generates high levels of stress and emotional exhaustion, with the potential for maladaptive coping responses and dependence on a culture of productivity and "bravado" without thoughtful self-care. Compared to general surgical practices, however, cancer surgeons reportedly achieve more personal fulfillment and less frequently use distancing methods to cope with their patients [29].

Emergency Medicine

A recent Medscape study of burnout across medical specialties showed 43% burnout among emergency medicine physicians, a prevalence similar to the average of all specialties. This marks an improvement over the last few years, but caution should be taken before concluding that the trend will continue, particularly in light of the extreme stressors of these frontline clinicians related to the COVID-19 pandemic. In addition to the more commonly understood drivers of burnout across specialties, burnout in emergency medicine is associated with high anxiety caused by concern for bad outcomes [30]; work overload (e.g., increased number of shifts per month); chronic fatigue of circadian rhythm disruption; dissatisfaction with institutional support including from specialty services; higher than average risk of medicolegal litigation; and the physician's sense of existential meaning derived from work [31]. A recent national survey of 1522 US emergency medicine residents across 247 residencies showed an alarming prevalence of 76% burnout, which is among the highest rate of resident burnout across specialties. Burnout among these trainees is due to a higher degree of depersonalization versus attending emergency medicine physicians and other specialty physicians [32]. Negative and cynical attitudes are a predictable outcome when young physicians are overworked, caring for high acuity patients in environments that are often under-resourced.

Psychiatry

Risk factors for burnout in psychiatrists may involve patients, physicians, and organizations. The issue of *violence* in the workplace is especially important in psychiatric setting and perceived as an important source of stress, being associated with higher levels of emotional exhaustion and depersonalization [33]. Patient *suicide* has an important impact on physicians' personal lives, psychological health, and

management of their job and is subjectively considered as a major stressor in the psychiatric profession [34]. Engaging with *traumatized* patients is associated with a greater stress, leading to the manifestations of burnout [1]. Confronting patients' *families* and their high expectations may contribute to the emotional exhaustion of psychiatrists, especially when facing particularly demanding cases [15]. Other patient characteristics display an influence on burnout, such as the severity of the mental disorder and the suspect of malingering.

Psychiatrists tend to display *personality traits* such as high neuroticism, openness and agreeableness, and low conscientiousness in comparison to other physicians that may predispose them toward stress [14]; also the *attachment style* [15] and *coping* mechanisms [19] were associated with stress in work relationship and burnout. Psychiatrists may also feel stigmatized in their profession and experience increased stress [17, 18]. Organizational characteristics also play a role in the development or prevention of burnout for psychiatrists and other physicians. Some general organizational factors include workload (i.e., the capacity of meeting work demands), *control* (i.e., perceived autonomy and ability to influence decisions in the workplace), *reward* (i.e., feeling fulfilled by work), institutional or even social recognition, and *work-related community, fairness* (i.e., perceived equity in the workplace), and *values* (i.e., the conformity of perceived values of the employee and the organization.

Burnout During the COVID-19 Pandemic

Physicians at the front line of the COVID-19 pandemic have faced unique challenges, including concern for their personal safety, the welfare of their patients, families and loved ones, and job stability and security. Healthcare professionals (HCPs) are responding with selflessness, altruism, and urgency that have unexpectedly catalyzed the restoration of some elements of autonomy, competency, and relatedness [35]. The long-term impact of this experience has yet to be observed. Current and future burnout among HCPs could be mitigated by actions from healthcare and other governmental institutions, aimed at potentially modifiable factors, including providing additional training, organizational support and support for family, PPE, and mental health resources [36].

Trends in Limiting Burnout

The trend toward viewing physician burnout as a problem of the healthcare organizational culture and working environment has expanded the opportunity for both physician-directed and systemic or organization-directed interventions to reduce physician burnout and promote engagement. Engagement has been defined as the positive antithesis of burnout – characterized by vigor, dedication, and absorption in work [37]. Organization-directed interventions are more likely to lead to reductions in burnout, especially those that combine several elements such as structural

changes, fostering communication between members of the healthcare team, and cultivating a sense of teamwork and job control which tend to be the most effective in reducing burnout [38].

Nine organizational strategies to promote physician engagement have been identified by Shanafelt and colleagues [37]: acknowledge and assess the problem; harness the power of leadership; develop and implement targeted work unit; cultivate community at work; use rewards and incentives wisely; align values and strengthen culture; promote flexibility and work-life integration; provide resources to promote resilience and self-care; and facilitate and fund organizational science. These strategies are broadly applicable to healthcare organizations, including cancer centers.

Individual resilience is the ability to withstand and recover from stress and adversity in a healthy, adaptive way [39]. It is not possible to eliminate all the external stressors that contribute to burnout, and therefore physicians have a shared responsibility to build their immunity to stress and ability to tolerate uncertainty. For optimal performance, however, both the organization and the individual must be resilient [40]. The Triple Aim (enhancing patient experience, improving population health, and reducing costs) is a widely accepted approach to optimizing health system performance, which is threatened by the magnitude and ubiquity of physician burnout. It has been suggested that the Triple Aim be expanded to a Quadruple Aim, adding the goal of improving the work life of healthcare providers, including clinicians and staff [41].

Enhanced recognition and understanding of the prevalence and impacts of physician burnout has resulted in structural changes across many organizations, including hiring physician and executive chief wellness officers, developing interdisciplinary steering committees, and enlisting occupational health departments to examine employee illness and wellness in the context of potentially modifiable workplace stressors.

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