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Prevalence, risk factors and clinical impact of burnout in internal medicine units: a call to action

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Abstract

Health workers, and in particular doctors and nurses working in internal medicine units (IMUs), are at high risk of burnout. Overcrowding, complexity and severity of clinical cases, patients' social and family issues, impact of death, and "workload" are all aspects that are specific risk factors that might lead to the development of burnout in this scenario.

People suffering from burnout may face several psychological problems (including extreme physical and mental fatigue, emotional exhaustion, loss of enthusiasm concerning work, feelings of cynicism, and a low sense of personal accomplishment) and are also at risk of developing some somatic diseases. Furthermore, the quality of care delivered by a worker in burnout seems to worsen and slip down.

In this review, we analyzed the main risk factors and consequences of burnout in IMUs, and we propose individual and organizational measures that may be applied to be able to prevent burnout in this setting.

Key words: burnout, internal medicine, stress-related disease.

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Introduction

Work environment and working conditions expose the individual to numerous stress factors [1]. Stress-related diseases are defined as burnout [1]. The term "burnout" was first used in a clinical sense in the early 1970s by Herbert Freudenberger to describe the consequences of severe stress and high ideals experienced by healthcare workers [2-4].

Burnout should not be considered a medical condition but a state of physical or emotional exhaustion that is turning into one of the most important psychosocial and occupational hazards. People suffering from burnout show extreme physical and mental fatigue, emotional exhaustion, loss of enthusiasm for work, feelings of cynicism, and a low sense of personal accomplishment [1,2].

In addition, health workers are also at risk of developing somatic diseases. In fact, high rates of overtiredness are significantly associated with type 2 diabetes and with cardiovascular, skin, chronic lung, and gastrointestinal diseases [5].

"Stressed out" laborers are less satisfied with their job, and they would be more willing to change their profession, with a reduction in productivity and care efficiency and an increase in medical errors. Of note, the quality of care delivered by a worker with burnout seems to decrease [6,7].

A systematic review found a relationship between high levels of burnout and worsening patient safety, suggesting the possibility of considering the occurrence of burnout as a measurable indicator of the quality and patients' safety of a health facility [8].

Risk factors of burnout

Several elements at the individual and organizational levels can contribute to the onset of burnout in the workplace in people who work in the healthcare field [2].

Lack of social support and meaning at work, work-life balance, and experience dealing with trauma are some of the individual factors that can cause burnout [2]. Sleep disorders are also critically linked to burnout, especially for health professionals with chaotic working hours and putting up with night shifts. Chen *et al.* conducted a survey in a large health cluster in Singapore, including a large number (n=4777) of different health professionals, showing strong evidence between sleep quality and the development of burnout [3].

Organizational factors include lack of clarity in one's function at work, excessive working hours, workload, an ongoing imbalance between one's role and the resources available, lack of job awareness, and effectively designed work systems [2,7].

The modern medical workplace is a complex environment that, more than others, favors the spread of burnout. The responsibility to make critical decisions with potential serious consequences, the social culture of guilt and the pressure to avoid errors, the increased workload, and the excessive bureaucracy are among different facets of job conditions that have rendered medical practice inherently stressful and at high risk of growing burnout [4].

For instance, in a study led by Linzer *et al*. [6], more than half of physicians (53.1%) reported stressful hours during office visits, and 48.1% felt their workplace was chaotic, and 26.5% of responders reported feeling burnout. In this study, a tight schedule, chaotic environment, poor organization, and low resources were strongly associated with low physician job satisfaction and the spreading of burnout.

Lastly, in recent years, there has been a growing concern regarding clinician burnout attributed directly or indirectly to the widespread use of health IT systems, such as electronic health records (EHRs) and computerized order entry. Findings suggest that the risk of burnout for full-time clinicians may increase significantly if they spend more than 60 to 90 minutes per day on the EHR after hours [8]. Thus, for all these reasons, health workers have a higher risk of both burnout and lowered work-life balance compared to the general population [4].

The syndrome of burnout in internal medicine workers

In 2022, a survey conducted by Medscape in more than 9100 physicians evaluated the prevalence of burnout and depression in 29 physician specialties [9]. Emergency medicine specialists had the highest rate (65%) of these complications followed by internal medicine (60%), pediatricians (59%), obstetrics and gynecologists and infectious disease (58%), family medicine (57%), neurology, critical care and anesthesiology (55%), pulmonary medicine and radiology (54%), oncology (52%), gastroenterology (52%), general surgery and diabetes and endocrinology (51%) and finally rheumatology (50%) [9].

In the context of internal medicine, stress originates from frequent intense interactions with complex patients, defined as patients who are older and frail, with complex care needs or with numerous comorbidities, mental health issues, medication-related problems, and social vulnerability [10].

In addition to this, most of the patients admitted to internal medicine come from emergency rooms with a high variability of the case-mix [10].

The other relevant problem of internal medicine is overcrowding. During the last few years, the progressive cutting of beds in hospitals, at least in Italy, together with the increased complexity of patients, has determined an increase in bed utilization in hospitals, leading to the phenomenon of patients hospitalized outside the appropriate ward (outliers). This is particularly evident in the context of internal medicine [11].

If we also consider the social culture of blame and the excessive bureaucracy, the higher risk of developing burnout in internal medicine appears clear.

Several studies have investigated burnout among internists. A survey conducted between 2011 and 2014 by the Mayo Clinic showed that from 45.5% to 54.4% of internal medicine residents reported at least one of the symptoms of burnout [12].

Moreover, it has been shown that in several different countries, more than half of the residents in a non-surgical setting suffer from burnout syndrome [13].

In particular, the COVID-19 outbreak has led to a massive overexertion of doctors, multiplying their work intensity, overload, and stress, and as a matter of fact, several studies have revealed an increased level of burnout in healthcare professionals during that period [14]. Furthermore, a wide percentage of healthcare professionals reported high scores of emotional exhaustion and high levels of depersonalization [14].

A survey performed in Spanish hospitals documented that, during the COVID-19 outbreak, 40.1% of internal medicine physicians presented burnout syndrome. Stress due to assisting patients with SARS-CoV-2, overworking without compensation, and the fear of being contagious to their loved ones were among the most frequent causes of this disease [15].

Unfortunately, although several studies have clearly shown that the majority of patients hospitalized with COVID-19 were treated in internal medicine units (IMUs) [16], there are no published data on the consequences of the COVID-19 outbreak on health employees working in Internal Medicine.

Burnout in the nursing staff

Nurses represent the largest group of healthcare professionals in the modern healthcare system. Their professional nature, which is based on providing technical but also emotional care, might predispose them to the symptoms of burnout [17]. The study of Woo *et al*. reports that 11.2% of nurses worldwide report burnout symptoms [18]. However, the literature reports significantly different prevalence of burnout in different units, with the highest prevalence registered among intensive and critical care nursing staff [19].

Among these, burnout has direct consequences on psycho-physical well-being, on the quality of care, on the safety of the care provided, and on professional behavior, with an increase in absenteeism and in the intention to leave their job [19-21]. In particular, this is strongly correlated with burnout symptoms, and, as reported by the Italian RN4Cast study, 36% of nurses had the idea of quitting their profession within the subsequent 12 months [22].

Sasso *et al*. identified some factors that influence the intention to leave and the intention to stay: the main factors that influence the intention to leave are the burnout symptoms such as exhaustion and depersonalization, followed by the understaffing, and the difficulty to be adherent with nursing activities when there is a need to perform non-nursing care. On the other side, the factor that mainly influences the intention to stay is the perception of the elevated quality and safety of care provided [23].

There are many strategies to contain burnout and the intention to leave in nursing staff, one of them is improving nurse resilience [23], which is defined as "the skill that nurses learn and possess to survive and thrive in the face of adversities at work" and a key role is played by the nurse leader [22].

As suggested by Wei *et al*. [24], there are seven strategies for nurse leaders to cultivate nurse resilience: improving social connection through nurses to help them in interpersonal relationships; helping nurses to see events from a positive perspective; recognizing nurses' skills and helping them to implement those at work; using the mentoring method to support nurses in their professional growth; encouraging nurses' self-care; promoting mindfulness practice, and finally using empathy between nurse leaders and nurses.

Strategies to prevent and treat burnout in internal medicine units

Reducing burnout in the workplace, knowing what the contributing factors are and how to prevent them, is crucial for the sake of retention and overall workers' well-being [1].

There should be a "burnout culture" that encourages healthcare organizations to investigate signs and symptoms of burnout among their employees [25]. The primary prevention aims at early recognition of signs and symptoms of burnout. Maslach and Jackson's conceptualization of burnout remains the most widely accepted tool for assessing its presence and severity [26].

Once the burnout syndrome has been identified, it is possible to work in a variety of different ways, such as interventions for healthcare workers (individual interventions) and strategies changing the workplace or organization of work (organizational interventions) [26].

On an individual level, interventions may promote a healthy lifestyle and self□care, such as eating, sleeping, exercising, following a routine, avoiding excess social media, and keeping in touch with family and friends. People with high levels of self-compassion have greater emotional stability and lower levels of anxiety during stressful times, having a lower risk of burnout [27].

Other good habits are to implement regular exercise and to learn the use of techniques with a progressive muscle relaxation or meditation. In particular, yoga and meditation appear to be effective tools to improve empathy and work-related problems in healthcare workers [28,29].

Finally, adequate exposure to sunlight, regular exercise, limiting daytime naps to 30 min, avoidance of stimulants such as caffeine, nicotine, and alcohol close to bedtime, and limited exposure to smartphones and computer screens at bedtime can be suggested to improve the sleep quality of workers [30].

Organization-directed interventions should improve the working environment, reduce the intensity of workload, and optimize the comfort of the shift schedule.

Effective teamwork is now globally recognized as an essential tool for constructing a more effective and patient-centered healthcare delivery system. A well-functioning team can decrease stress and tension in the workplace [31].

Interventions increasing autonomy and sense of control over one's working life, fulfilling the need to work in a team and to experience effectiveness in one's work, caring for others, and feeling appreciated and supported can be strategies to ameliorate the workplace and then the emotional state of workers [32].

The intervention of CREW (Civility, Respect and Commitment at Work) of the Veterans Health Administration of the United States is a method developed to improve the social climate of working groups that might reduce work burnout too [33]. Leiter *et al.* subsequently analyzed a more targeted intervention in the workplace named CARAWay (Civility and Respect at Work) [34].

These methods are based on tackling a work problem through individual training and the increase of positive social behaviors. Social education through active conversation with peers leads to an improvement in emotional intelligence, in the sense of belonging to the group, reinforcing teamwork [34].

Guidelines from the National Institute for Health and Care Excellence recommend the creation of a supportive and inclusive working environment to improve mental well-being in the workplace [35].

Cognitive behavioral therapy services and the opportunity to explore mindfulness should be offered to those who need these techniques.

Literature shows that the greatest physicians' satisfaction is associated with the relationship and the relevant time spent together with patients [36,37].

A possible solution is to implement the practice of teambuilding and to entrust the bureaucratic activities to other employees, and the hospital departments should guarantee the presence of administrative staff supporting the clinicians as far as bureaucracy at work is concerned, allowing clinicians to focus on their activities on patient care [38]. An interview study showed that the use of medical scribes could contribute to the reduction of clinician burnout through their interactions with clinicians, patients, and computerized systems [26].

Workers involved in rotating shift work are subjected to continuous stress, and this is particularly true for doctors and nurses working in IMUs. Thus, suggested actions could consider eliminating rotating shifts that disrupt sleep patterns, replacing them with regular night shifts, scheduling shifts to begin before midnight and last no longer than 11 hours, to help workers stabilize circadian rhythms, scheduling regular breaks earlier in shifts, and establishing health programs that promote healthy behavior [39].

Furthermore, strategies to increase light exposure before and throughout shifts and avoidance of blue light exposure from electronic devices from two to three hours before bedtime have clearly demonstrated to boost sleep quality [40].

The current situation in working conditions that include too many working hours has made it increasingly difficult for both women and men to balance their work and family responsibilities in a satisfactory manner [41]. Thus, hospitals should also be equipped with school facilities to help workers with children. Social interaction should be made easier, and social support should be increased.

Previously, designing clinical spaces for well-being has been focused primarily on the patient. Now, caring for the workers who serve them is crucial to creating and maintaining a high-performing hospital system. There should be relaxation areas for healthcare workers where they can take a break, be quiet, read, and relax in all hospitals [41]. Table 1 shows a call to action for burnout in IMUs.

Conclusions

Burnout is an under-recognized and under-reported disorder among health workers, and this condition may be common in IMUs. In this setting, doctors and nurses often must work in stressful conditions, performing high-risk procedures and coping with incessant workload.

Several studies and meta-analyses clearly demonstrated that burnout has a negative impact not only on the work and personal lives of workers but also on the care of patients.

It is estimated that annually, in the USA, clinician burnout costs $5000-10,000 per worker due to a lack of productivity and staff turnover.

In a meta-analysis on 82 studies including 210,669 healthcare providers, Salyers *et al.* found a statistically significant negative relationship between burnout and quality [r=-0.26, 95 % confidence interval (CI): -0.29, -0.23] and safety (r=-0.23, 95 % CI: -0.28, -0.17) of healthcare [42].

Therefore, it appears critical to periodically evaluate the presence of signs and symptoms of burnout in healthcare workers,

Table 1. Burnout in internal medicine units: a call to action.

1	Assess regularly (twice a year) the presence of signs and symptoms of burnout in healthcare workers with a rapid questionnaire (*e.g.*, Maslach questionnaire).
2	Respect a sufficient quantity of hours off work between two work shifts (≥11 hours).
3	Respect monthly working hours avoiding excessive additional hours.
4	Apply a progressive clockwise rotation (morning/afternoon/night) instead of rapid sequential rotation.
5	Increase co-management with other specialties to avoid congestion and overcrowding in internal medicine units.
6	Improve the health workforce in internal medicine changing current Italian legislation which considers internal medicine as a "low complexity" specialty.
7	Provide opportunities for rest and relaxation during the workday (*e.g.*, regular breaks, shorter working hours, regular team meetings, relaxation/recreation areas in workplaces).
8	Implement practices of teambuilding.
9	Improve the architecture and design of internal medicine units (minimize noise include sliding doors, distributing work zones for clinical staff across the floor rather than in a single location, and elevators and visitor waiting areas located away from patient rooms).
10	Encourage periodic staff training

implementing every measure to deal with stressful situations. Strategies to improve organizational workflow and interventions for the improvement and strengthening of health services should be implemented. This manuscript would increase consciousness about an important problem as burnout, among professionals in the health world and political level.

Epidemiological and health-economic studies on the prevalence, incidence, and cost of burnout in IMUs are lacking. Consequently, prospective high-quality studies assessing these issues are needed.

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