



Physician Burnout: a Brief Review of Its Definition, Causes, and Consequences

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ABSTRACT

Burnout among physicians is a potential warning to the health system and one of the prime occupational hazards of recent years. Burnout is characterized by emotional, mental, and physical fatigue. Numerous studies have shown that burnout has a high prevalence among physicians, such that about one-third of them are affected at some point in their career. A recent study from the United States reported that 45.8% of physicians present at least one symptom of burnout. Statistics indicating one suicide per day among physicians show the urgency of the matter and the need for improvement. It has been reported that this syndrome may even start from the beginning of medical studies such that medical students and r= is review article, we describe the main cause and consequences of physician burnout. To investigate the issue, the two keywords of "burnout" and "physician" were searched in PubMed, Medline, Sciences Direct, and Google Scholar. We did a comprehensive literature review to extract any recent related content about the cause and consequences of physician burnout. Drawing from the studied literature, it is concluded that to address the issue, first, the elements of physicians' wellness and satisfaction should precisely be determined, then necessary interventions should be adopted to improve the situation.

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Introduction

Although the medical profession is very valuable and done on its own, it is difficult and distressing. The findings of studies show most physicians experience burnout, a syndrome marked by a decrease in the desire for work (emotional exhaustion), feeling pessimistic (loss of personality), and a little feeling of experience individual (1,2).

Findings from recent studies show that job burnout may reduce professionalism, the impact of care quality, increased risk of medical errors, and early retirement (3-7).

Also, burnout appears to have unfavorable in

vidual subsequences for clinicians, including helping to defeat relationships, drinking alcohol, and suicidal thoughts (8,9).

Job burnout is a work-related syndrome that involves emotional fatigue, loss of personality, and a feeling of diminishing success (10).

Burnout is recognized as a risk that is common among occupations, such as healthcare (11).

There is a close relationship between burnout and pressures and pace of work that physicians are exposed to (12). Generally, Burnout is very common among doctors all over the world,

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but its exact rate is different based on country, medical skill, practice setting, genus, and profession step (11).

Recognize of physician burnout as a systemic health care problem is increasing (13).

There is an association between burnout and substance abuse, suicidal ideation, and career dissatisfaction, also and the rate of burnout in medicine is two times higher than other professional fields (14).

Burnout rates are increasing to the "epidemic level," and its consequences affect physicians, their coworkers, their patients, and the healthcare system (11).

Reports from around the world show that about one-third to one-half of physician experience at least one case of burnout (15,16).

Because of the integral role of physicians in the health care system, the risk of burnout can affect all physicians, both those who have experienced and those who have not (15).

Individual abilities such as energy, passion, interaction, efficiency, and success play an effective role in improving physician-patient relationships and physicians' professional satisfaction (17).

Factors such as increased medical error, decreased patient satisfaction, prolonged recovery time after discharge, and reduced occupational effort may be related to physician burnout. It seems that these problems are now more widespread than ever before, a fact that is being investigated and debated by researchers (17).

Given the high prevalence and importance of burnout among physicians, the aim of this study was to investigate its causes and consequences.

The adopted standard for assessing occupational burnout is the Maslach burnout inventory (MBI), including an appropriate human services survey for health professionals (18-20).

Apart from the MBI, there are separate measurement methods for the diagnosis of burnout (21).

e.g., the Copenhagen Burnout Inventory and the Oldenburg Burnout Inventory (22-24).

In spite of the continuing attempts to detect current burnout, the MBI is a golden standard to assess burnout (25,26).

Most burnout research focuses on environmental communication, but personality factors are also an important part of expanding burnout.

literature review

What is burnout?

Professional staff providing human services often have to spend lots of time collaborating with others. Employees and customers are often engaged in solving the psychosocial and physical problems of current customers, which leads to

their own anger, embarrassment, fear, and disappointment. Providing solutions to the secondary problems cited is not always straightforward and simple to achieve. This ambiguity and disappointment; therefore, exacerbates the situation. Chronic stress caused by providing individuals with professional assistance in these conditions drains them and increases their risk of burnout (27).

In the 1980s, a basic study Maslach et al. defined burnout as a combination of personal inactivity, loss of personality and emotional exhaustion, which cause chronic stress in health professionals (28).

In fact, emotional exhaustion refers to feeling "used up" at the end of a working day and being unable to emotionally support patients (29).

The exhaustion associated with prolonged working hours and heavy workloads combined with the stress caused by making cognitive decisions in emotionally-charged settings contribute to burnout in physicians (30).

Furthermore, depersonalization refers to a sense of cruelty to patients and treating them inappropriately and like objects rather than human beings. Reduced self-esteem manifests itself as feelings such as inability to evaluate the outcomes of the activities related to work, including patient care and professional development, and being inefficient in assisting patients in solving their problems. Although burnout is associated with factors such as depression, occupational stress, occupational dissatisfaction and fatigue, it is a totally different concept and can emerge in the absence of these problems or disappear in their presence. Being work-related can well discriminate between burnout and depression. The emotional exhaustion dimension of burnout appears to be more associated with depression compared to dimensions such as loss of personality and reduced personality accomplishment, which are insignificantly associated with psychological problems such as depression (29).

Due to similar rates of burnout have been reported in medical students and residents compared to their fully licensed colleagues, the syndrome begins in medical education from the beginning (16).

How can burnout be measured in doctors?

The 22-item MBI has been designed with three subscales for measuring the three dimensions of the burnout syndrome cited (31).

The items are scored 0-6 depending on the feelings or inclinations. The emotional exhaustion subscale includes nine items with an overall score of 0 to 54, the depersonalization subscale comprises five items with an overall score of 0 to

30, and the personality accomplishment subscale includes eight items with an overall score of 0 to 48. Scores of at least 27 obtained from the emotional exhaustion subscale, at least ten from the depersonalization subscale, and at most 33 from the personality accomplishment subscale indicate high levels of exhaustion in physicians (10, 27,31).

The job demands-resources (JD-R) model is used to investigate the association of occupational features with occupational burnout and other performance rankings (n=146).

Arnold Bakker et al. examined three hypotheses, namely

1. Job demands, including emotional needs and occupational stress, are the main predictors of burnout components, which in turn predict the performance.

2. Job resources, including social support and independence, are the main predictors of superior performance through relating to an integral part of extinction.

3. The relationships of job demands with exhaustion are counteracted by job resources.

4. This fatigue is significantly related to anxiety.

The findings obtained from structural equation modeling confirmed for hypotheses 1, 2, and 4, and rejected hypothesis 3. These results are consistent with the JD-R model that suggests job resources and job demands begin with triggering two psychological processes that ultimately influence organizational outcomes (32).

According to the JD-R model, working conditions are divided into broad categories, job resources and job desires, which is inconsistent with some studies (33).

A series of LIS3 EL analyses using its own report and the assessments of working conditions by observers provided compelling evidence in support of the JD-R model by suggesting job demands are significantly related to burnout, whereas the lack of job resources is significantly associated with reluctance (34).

The same patterns were identified for individual occupational categories, i.e., transportation, industry, and human services (n= 374) (33).

Furthermore, confirmatory factor analysis of the recently-designed burnout instrument, the Oldenburg Burnout Inventory, involving two factors of exhaustion and disengagement, suggested this structure is basically constant in different working groups (33-35).

Contributors to physician burnout

Personal factors contributing to burnout

In contrast to the general population, the risk of committing suicide by female physicians has

exceeded that by male physicians (17).

Younger physicians also appear at higher risks of developing burnout; in fact, physicians below the age of 55 years are two times more vulnerable than those over 55. The risk of burnout has been found to be increased by 52% as a result of having children below 21 years of age, and by 23% as a result of having a partner or spouse working as non-physician health professional. Nevertheless, individuals who select their job as a physician inherently appear less susceptible to burnout and stress, which suggests the key role of organizational, occupational and healthcare system factors in burnout in physicians (29).

Personal factors with a major role in the increase in the risk of depression and suicidal attempts comprise indebtedness, the stress caused by problematic relationships with one's family or friends, alcohol and drug abuse, having a history of psychological disorders in oneself or one's family and more importantly the stress and threats in one's professional life (17).

Culture of medical practice

Medical students must follow dealing with certain cultural imperatives involving compassion, competence, excellence, and service, each of which can turn destructive if unbalanced. Physicians routinely deny themselves personal needs, such as sleep and food during their internship and work (17).

The consequences of sleep deprivation include lower levels of patient care, decreased occupational satisfaction, and lower health levels, all of which cause burnout (36).

Instances of self-denial, including sickness presenteeism, which is defined as attending the workplace despite having an illness, are commonly observed in practicing physicians and residents and are harmful to both the physicians and patients. Physicians are generally unable to permanently strictly controlling patient outcomes, and unbridled senses of responsibility for these outcomes can cause inappropriate sensations such as shame and despair (17).

System factors

The Accreditation Council for Graduate Medical Education (ACGME) in the US introduced certain restrictions on working hours for residents in 2003 and revised them in 2011. Despite targeting the promotion of patient safety and lowering fatigue, mixed outcomes were achieved as no decreases in the prevalence of burnout in residents despite reducing their working hours (37).

Moreover, shifting the workload from the trainees to the faculty members increased the risk of burnout at the practicing level. Health system adopts different policies for restrictions on working hours.

Compressed work is an unintended phenomenon caused by the fact that the same amount of workload and learning may be accumulated for short periods. Therefore, the pressures decrease both the available amount of time for learning, teaching, and the satisfaction of faculty members and the trainee with the academic setting (38).

Work factors

Work-associated stress factors can develop burnout in physicians. Inefficient work processes such as those needs physicians involvement in electronic instruction communication and comprehensive documentation, i.e., computerized physician order entry, which is far from optimizing the time, can develop burnout symptoms (29).

Excessive workloads involving a high intensity of work, receiving frequent overnight calls from work, long working hours, lack of help from workmates, deterioration in control, meaning and autonomy at the workplace and failing to strike a balance between family and work are also associated with burnout in physicians. Second victim syndrome and blame-related distress after adverse patient outcomes commonly manifest themselves as suicidality and depression combined with burnout, anxiety, frustration, and an intention of leaving the medical practice (36-39).

The factors contributing to burnout include:

- Prolonged working hours
- Bureaucratic/administrative work
- Electronic health recording, i.e., an increased screening duration
- Failing to strike a balance between work and private life
- Increased concentration on productivity
- Lack of support from the management
- Lack of a relevant job
- Non-participation in work
- Non-alignment between organizational and individual values
- Lack of flexibility/work control (16).

Consequences of burnout

Despite working in a very stressful environment and situation, physicians do not provide the necessary training to manage the ongoing nature of these stresses. Failing to properly instruct physicians in this regard significantly contributes to the response of healthcare providers to the chronic stress leading to burnout. Pathological responses can also develop burnout and augment the risk of suicidality and depression in physicians (16).

Stress---> Burnout ---> Depression ---> Suicide

Depression

The characteristics of depression as a disorder include mood swings and loss of pleasure and interest in daily activities, and its symptoms consist of concentration problems, feeling guilty and worthless, loss of energy and exhaustion, activity variations, sleep disorder, changes in appetite and weight, anhedonia, irritability and suicidality in severe cases (17).

Suicide

The community is shocked by a physician committing suicide [36]. Suicide is the horrible outcome of complex problems in behavioral health, individuals' health and environmental factors. Suicide is normally caused by burnout and psychological disorders, including bipolar disorder, depression and stress. Research suggests that 34% of individuals with suicidality in the general population can lay suicide plans, at least 70% of which commit suicide attempts (40).

Alcohol and drug abuse

Harmful behaviors reported in some physicians include alcohol and drug abuse with an approximate prevalence of 10%-12%, which is close to in the general population (17).

Reduced empathetic behaviors

Physical exhaustion, workload, lack of sleep, burnout and emotional exhaustion can reduce empathetic behaviors by health professionals towards patients (12).

Strategies to improve physician well-being

Compassion fatigue caused by prolonged exposure to stress can cause the feelings of personal failure, helplessness and defeat as well as the loss of enthusiasm for work. As a result, the physician may become alienated and depersonalized, and healthcare providers begin to develop negative attitudes toward their profession, objectify patients and indifferently treat them (41).

The quality of patient care is also compromised, and the doctor-patient relationship and inter-personal relationships among colleagues are strained. Moreover, the majority of healthcare professionals failing to pay adequate attention to their own well-being can affect their health and personal life; nevertheless, the medical culture does not appear to have laid much emphasis on clinician well-being, and the effects of burnout and compassion fatigue appear overlooked (42).

The effective factors in physicians' well-being are multidimensional and of individual and environmental types. As an occupational imperative, self-care in terms of psychophysical health constitutes the optimal approach to improving the well-being of physicians. Considering physicians as human beings, adjusting for stressors in special working conditions, including clinical departments, institutional method, national strategies, and policies can enhance the likelihood of successfully improving the health status of physicians (43).

Personal approaches

Personal approaches involve paying proper attention to medical conditions and performing health-preserving activities such as having a good sleep as well as early diagnostic tests. Psychotherapy and counseling constitute effective therapies for depression and other psychological disorders, including anxiety (44).

Cognitive-behavioral therapy

A study found self-compassion cultivation programs based on the internet to result in benefits, including reduced stress and depression and increased happiness, in psychology trainees.

Exercise

In addition to its beneficial effects on public health, exercise positively interacts with others, and was found to significantly affect depression. A study conducted in the Mayo Clinic found the quality of life to improve and burnout to decrease in trainees participating in organized exercise programs compared to in the group not participating in these programs (45).

Mindfulness training

This type of training includes positive embodiment, appreciation, and recognition as well as other individual or group exercises.

Institution and system-based strategies

Developing systems and promoting resources are crucial for improving the satisfaction of staff health centers.

Enhancing physician professional development

Physicians' satisfaction can be significantly improved by providing them with opportunities for continuous medical education and the associated financial support (17).

Conclusion

Due to the recent expand in popular consciousness and notice to the trouble, as well as the terrible statistics of one doctor per day on self-murder,

it has created more urgency to improve burnout (46).

The depression that occurs during the period of residence causes the trainee's negative impact on self-understanding and self-reliance on the medical profession. The plan for improving the health of doctors should be multi-layered at the individual, institutional, and national levels. The following can reduce the barriers for physicians to seek appropriate care: changes in the issuance of medical certificates and institutional accreditation procedures and increased awareness and education about the developed risk of burnout, unhappiness, and self-murder (47).

Healthcare organizations should assess the balance between their wishes from physicians and the resources provided to keep workplace efficient and effective. In the end, these plans will help organizations reduce staff flow and get better the quality and safety of patient nursing (17).

We should know the components of a physician's health and satisfaction and design interventions that help physicians reduce their fatigue and dissatisfaction with medicine (48).

These interventions should be able to respond to the distress that has gradually accumulated over time, which can occur during medical school, residency, or difficult months after the residency. Also, interventions should be helpful in relieving acute distress with negative evaluations or distress patient interactions (49).

As physicians suffer from burnout due to the system, culture, and society in which they work, we need to understand the complex interaction between the signs, symptoms, causes, and consequences of burnout (Figure 1).

This perception can be individually and as a specialty, to create a path to improvement. Professional doctors who experience such a high level of burnout should be involved in this retrieval (39).

Students of medicine, neophytes, and primary care physicians are witnessing buskin and complicated things during their job. It is essential that doctors expand their skills to hold an impression of sympathy in dealing with suffering while suppressing their feelings will not be cut off to an emotional point (17).

Conflicts of interest

The authors declare no conflicts of interest.

Limitation

Since this article was written before the COVID-19 pandemic, this issue was not discussed in this article. It should be noted that the authors of this article are writing a similar review article to discuss burnout in physicians during COVID-19 pandemic.

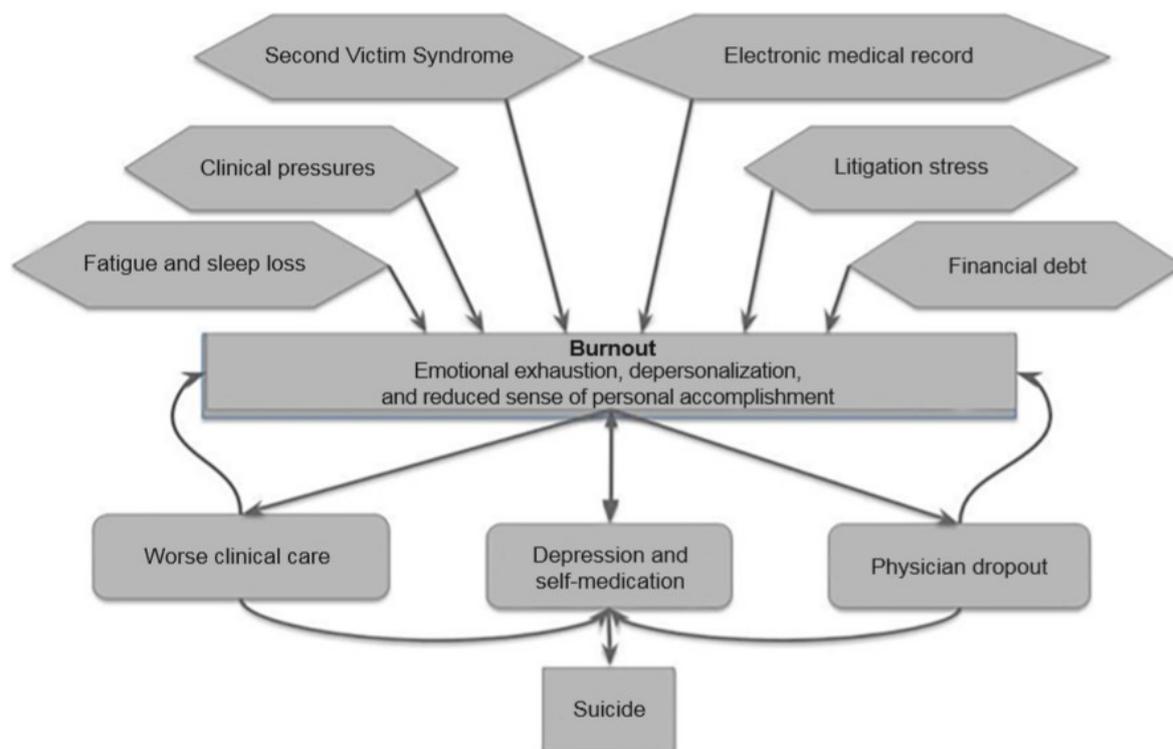


Figure 1: Diagram Summarizing the Review

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