


# A narrative review of research on healthcare staff's burnout during the COVID-19 pandemic

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## Abstract

**Background:** During the 2019 coronavirus disease (COVID-19) pandemic, burnout emerges as a critical health problem that might involve workers in many occupations, particularly healthcare personnel. Although burnout syndrome is not necessarily proved to be nosologic, it yields serious physical, mental, and social outcomes. However, it is essential to provide practical strategies and effective instruments for people so that they can adapt to such highly stressful conditions.

**Objectives:** The present review was conducted to explore preliminary evidence for nature, treatment, and prevention of burnout among healthcare workers during the COVID-19 pandemic.

**Methods:** Related English literatures published from the beginning of January 2020 to the end of September 2020 were searched in PubMed, Web of Science, Scopus, and Google scholar databases. “Burnout,” “COVID-19,” “healthcare workers,” “medical staff,” and “pandemic” constituted the search terms. A narrative technique was implemented for material synthesis and creating a compelling and cohesive story.

**Results:** Final results provided the burnout history and its major effects, causes, and prevalence among healthcare workers. Also, some strategies were listed to be employed by hospital medical staff and organizations to deal with the COVID-19 pandemic.

**Conclusions:** Recent evidence demonstrated that healthcare staff could gain significant benefits from interventions to modify burnout syndrome, especially from organization-directed interventions. So, health policymakers and practitioners should adopt such interventions and develop context-specific approaches promoting a healthy workplace and averting burnout during the COVID-19 crisis.

## Keywords

Burnout, COVID-19, healthcare staff, pandemic, review

## Introduction

Occupational burnout is a critical problem among hospital medical staff, which requires clinical consideration. During the 2019 coronavirus disease (COVID-19) pandemic, the frontline healthcare workers have been experiencing different types of physical and psychological stressors, which might lead to occupational burnout.<sup>1</sup> Also, sleeping problems and inadequate psychosocial support may increase the risk of this clinical state amidst COVID-19.<sup>2,3</sup> Occupational burnout is a common syndrome that has been reported by medical health workers all across the stages of their careers. In a recent meta-analysis, for instance, the prevalence of occupational burnout among physicians, nurses, and other hospital medical staff

members in the Middle East was estimated at the range of 40–60%.<sup>4</sup> Such a significant burden of burnout might rise during the COVID-19 outbreak since there is a huge workload in

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most of the health systems needed to be handled by healthcare providers.<sup>5</sup> Additional evidence has also demonstrated that nurses, female gender, young age, personal characteristics, grief caused by multiple losses, and limited supportive resources to handle workload are the most critical risk factors accounting for occupational burnout among hospital medical staff during the COVID-19 crisis.<sup>5–10</sup> Thus, burnout, as a growing concern for the healthcare community, may incur huge costs on providers, patients, and the entire healthcare system.<sup>4,11</sup> It is required to avoid occupational burnout via effective measures that ensure the emotional and mental well-being of healthcare providers worldwide, since the COVID-19 pandemic is likely to exert unique workplace stress alongside the already existing psychosocial burden among individuals.<sup>12</sup>

## Methods

Search terms including “Burnout,” “COVID-19,” “healthcare workers,” “medical staff,” and “pandemic” were searched in PubMed, Web of Science, Scopus, and Google Scholar databases in English literatures published from the beginning of January 2020 to the end of September 2020. Fundamental studies on burnout during the COVID-19 pandemic were examined, and the entire relevant literature was included. Eventually, the narrative technique was applied based on MacLure’s<sup>13</sup> description of how a researcher engages with the material, comprising reading, writing, thinking, interpreting, arguing, and justifying. Finally, the critical topics in this realm were discussed as follows.

## Results

### Definition

The model of employee burnout was first developed by Maslach based on Freudenberger’s view, which consisted of three dimensions, namely, exhaustion, depersonalization, and reduced personal accomplishment.<sup>14</sup> According to the World Health Organization (WHO) definition,<sup>15</sup> occupational burnout is a clinical condition resulting from chronic work-related stress, with symptoms marked by “feelings of energy depletion or exhaustion; increased mental distance from one’s job, or feelings of negativism or cynicism related to one’s job; and reduced professional efficacy.” During the recent outbreak of COVID-19, hospitals have been forced to rapidly provide clinical facilities and healthcare teams to quell the rising tide of COVID-19 patients. To meet the growing demand of COVID-19 patients, healthcare systems worldwide have been forced to send many healthcare workers to areas outside their usual clinical specialty and/or expertise, often with extra shifts and long working hours. As COVID-19 is a highly contagious pathogenic viral infection, healthcare workers are at increased risk for acquiring and potentially transmitting COVID-19 to patients, co-workers, and family/friends.<sup>16</sup> These challenges often trigger emotional exhaustion, as feelings of physical and mental depletion caused by the work environment. Besides, cynicism following emotional exhaustion may cause individuals to experience job dissatisfaction and feeling of detachment from their work. Also, a personal inefficacy affects the individuals’ emotional well-being and consequently causes feelings of

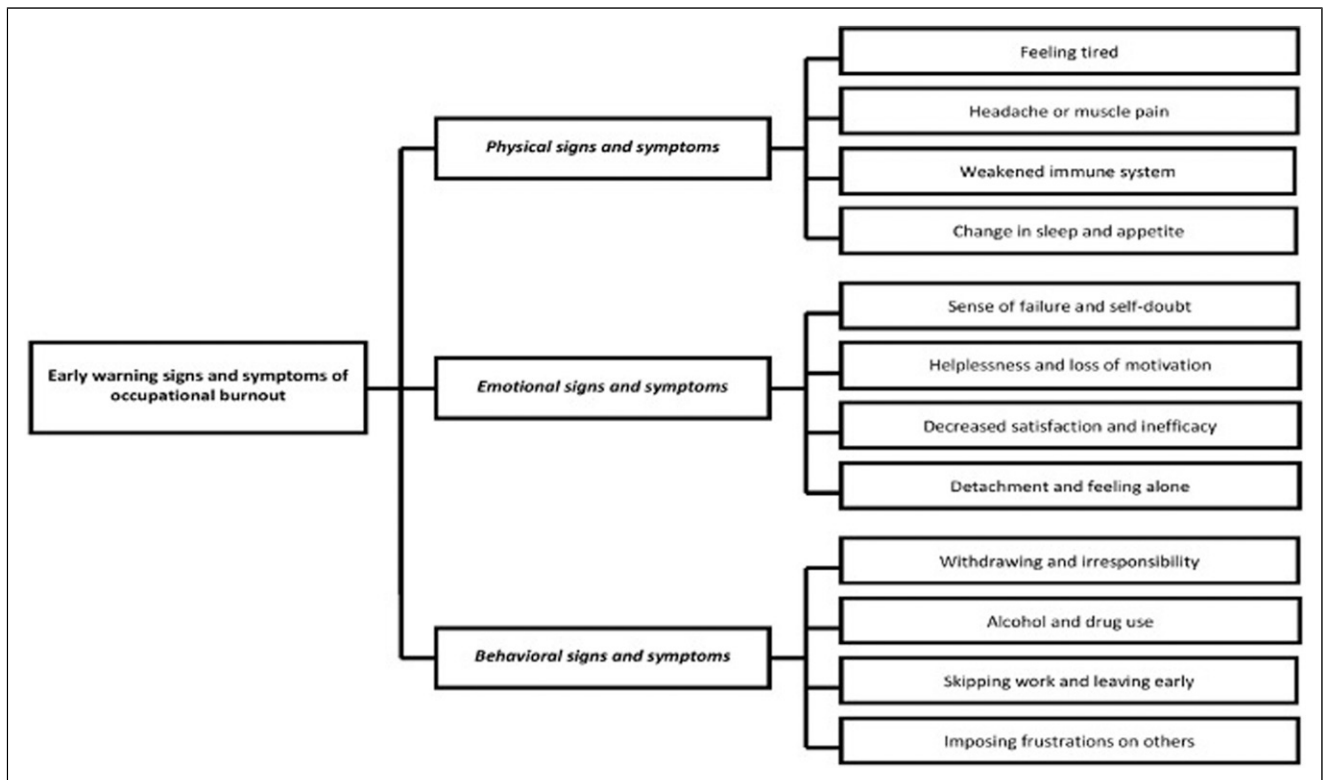
inadequacy and incompetence despite reaching achievements.<sup>4</sup> Thus, burnout is the most important health issue in the current COVID-19 crisis, affecting healthcare workers even more than before the pandemic.<sup>1</sup>

### Signs and symptoms

Occupational burnout is a creeping process, so the symptoms of occupational burnout are slight at first, followed by growing intensity as time goes on. Further, increased coping efforts with external demands cause emotional exhaustion, which is a stimulus for cynicism. Consequently, cynicism leads to more emotional exhaustion in a vicious cycle by triggering feelings of inefficiency. This time-lag is diagnostically important because not all people with high scores on emotional exhaustion experience personalization and inefficiency.<sup>17</sup> So, it is necessary to understand the early signs and symptoms of occupational burnout, as red flags among healthcare staff, during the COVID-19 pandemic.<sup>18</sup> Three cardinal symptoms of occupational burnout are emotional exhaustion, depersonalization (or cynicism), and inefficacy. Emotional exhaustion, as the basic individual stress dimension of burnout, refers to “feelings of being depleted of one’s emotional and physical resources.” The depersonalization (or cynicism) component reflects “the interpersonal context dimension of burnout.” Inefficacy represents “the self-evaluation dimension of burnout and refers to feelings of incompetence and a lack of achievement and productivity at work.”<sup>17</sup> Recent evidence demonstrates that men and women suffer from exhaustion and cynicism equally. However, inefficacy is much less common in men. Indeed, it is suggested that men are far less likely than women to doubt the meaning and quality of their work on an even higher level of burnout.<sup>19</sup> Figure 1 shows some of the early warning signs and symptoms of occupational burnout.<sup>20–23</sup>

### Causes and consequences

During pandemics, including COVID-19, occupational burnout can be provoked by the interaction between environmental-related and individual-related factors, as listed in Table 1.<sup>2,6,20–23</sup> Environmental-related factors comprise role conflict, role ambiguity, workplace-related events, and work overload. Individual-related factors such as single status, disruption of work–life balance, and personality traits (i.e., self-critical perfectionism, delayed gratification behavior, compulsiveness, and Type A personality) can increase the severity of work-related stress. Also, interests and hobbies can contribute to providing a mechanism to manage stress. The spillover effect of social support can be emotional and psychological support for individuals during the stressful period and, in turn, an insufficient social support can lead to the predisposition to occupational burnout. The perception and management of stress can be affected by emotional regulation and optimism.<sup>2,6,20–23</sup> Furthermore, occupational burnout may consequently develop various types of physical and psychosocial health outcomes including mood swings, irritability, anxiety, depression, lack of proper training and productivity, increase in employees’ tendency toward leaving their jobs, body aches and pains, symptoms of an upset stomach and indigestion, and cardiovascular diseases.<sup>24</sup>



**Figure 1.** Some of the early warning signs and symptoms of occupational burnout.<sup>20–23</sup>

**Table 1.** Occupational burnout-related risk factors during the COVID-19 pandemic.<sup>2,6,20–23</sup>

Environment-related factors	Individual-related factors
Control Little or no control over the work, role conflict, and role ambiguity	Personal characteristics Such as self-critical perfectionism, delayed gratification behavior, compulsiveness, and Type A personality
Workload Workplace-related events (e.g., confronting the challenges of long-term healthcare crises, enduring multiple losses, and meeting a deadline), job demands exceeding human limits, and the minimum rest period (sleep insufficiency)	Disruptions of work–life balance Being single, the discrepancy between work and other life roles, and working too much without enough time for socializing and relaxing
Reward Financial instability and inadequate institutional or social reward in the workplace	Social support Lack of close and supportive relationships due to stigma and discrimination and self-isolation after work on COVID-19 cases due to the fear of impending infection
Values Organizational values are inconsistent with the personal values or beliefs of individuals; employees should choose between the work they desire to do and the work they are forced to do	Hobbies and interests Spending much less time on hobbies and interests
Community Insufficient possibility of high-quality social interaction at work and lack of development in scopes related to the provision of mutual support, conflict resolution, professional closeness, or team building	Lack of job enhancement opportunities Spending much less time on hobbies and interests
Fairness Holding equity among healthcare staff members	Lack of job enhancement opportunities Lack of automation, policymaking and autonomy

Finally, occupational burnout is a crucial problem that affects not only providers but also the patients along with the entire healthcare system.<sup>25</sup>

**Severity and risk assessment**

During the COVID-19 crisis, it is required to evaluate burnout among medical hospital staff because healthcare

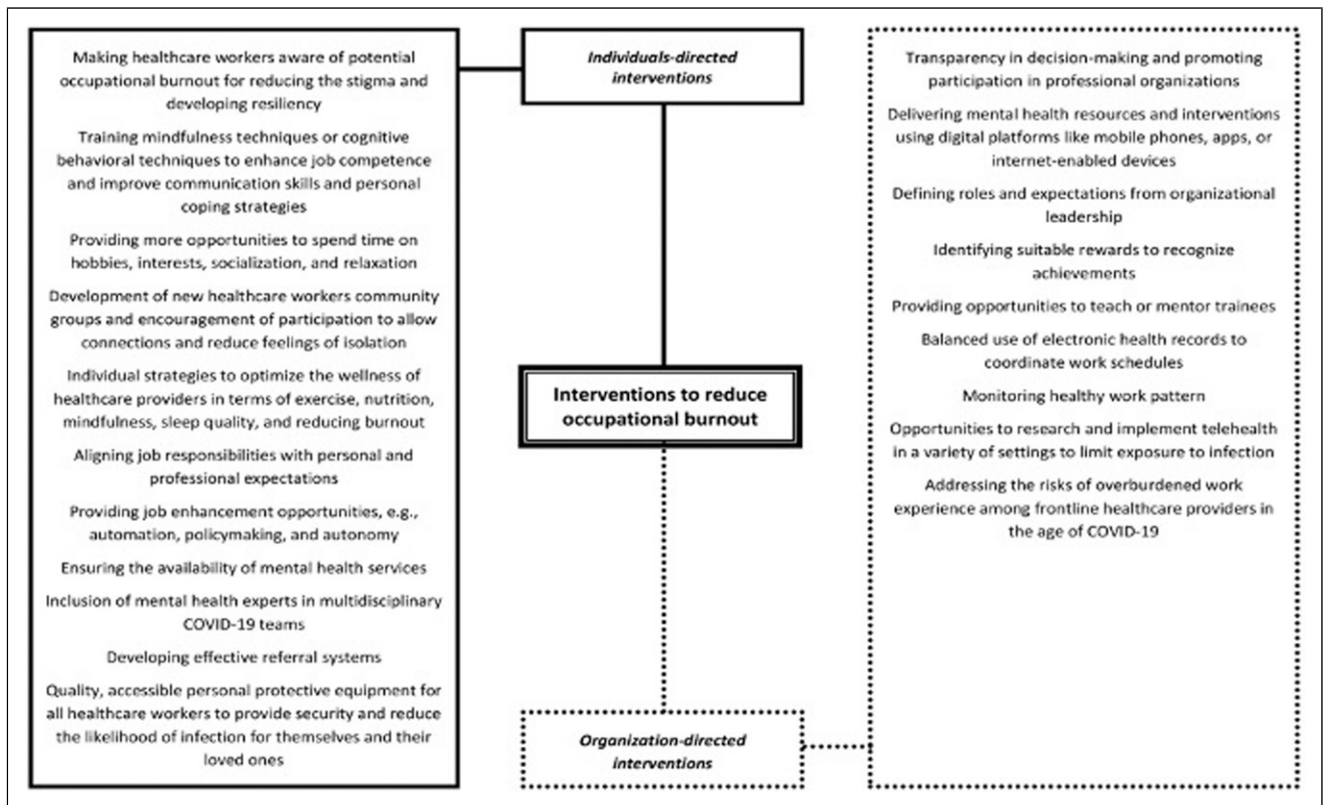
workers’ well-being has positive implications for stability in the medical workforce and the quality of provided care. In the COVID-19 crisis, occupational burnout might lead to the intention of leaving jobs.<sup>12</sup> An applicable instrument for screening of occupational burnout among medical hospital staff is the Maslach Burnout Inventory (MBI).<sup>26</sup> This inventory includes three subscales (namely, emotional exhaustion, depersonalization, and inefficacy) according to 22

questions assigned for the identification of the nature, presence, and magnitude of burnout. The subscale of emotional exhaustion in this inventory measures “feelings of being emotionally exhausted and overextended due to the workload.” The second subscale, that is, cynicism, is used to measure “an unfeeling and impersonal response to recipients of one’s care, treatment, service, or instruction.” The subscale of inefficacy measures “feelings of competency and success in one’s work with people.” Since emotional exhaustion can decide cynicism and inefficacy, this subscale is introduced as an essential component of occupational burnout. Emotional exhaustion is also a necessary measure for hospital medical staff, whereby their intention to leave jobs can be assessed.<sup>26,27</sup> The structural burnout model developed by the MBI’s authors states that burnout is provoked by work demands and a shortage of different resources, namely, social support, coping ability, autonomy, and decision involvement.<sup>27</sup> The effectiveness of this measure has been evaluated among a diverse range of human services professions such as healthcare staff.<sup>26</sup> This evidence highlights the role of MBI in screening occupational burnout, which should be considered to empower healthcare providers during the COVID-19 pandemic.<sup>10,22</sup> Another applicable instrument for screening occupational burnout among healthcare workers during the COVID-19 is the Copenhagen Burnout Inventory (CBI). This 19-item questionnaire includes three subscales of personal, work-related, and client-related burnout. Personal burnout assesses feelings of emotional, physical, and mental exhaustion. Also, work-related burnout measures the symptoms that respondents attribute to work. Client-related burnout evaluates feelings of physical and psychological exhaustion that respondents attribute to their work with patients. All items are scored on a 5-point Likert scale, and the total score for each subscale ranges from 0 to 100. Scores greater than or equal to 50 in each of the three subscales indicate high levels of burnout. Recent studies have shown the suitability of CBI’s reliability and validity among healthcare providers during the COVID-19.<sup>7,25</sup> In addition, Kannampallil et al.<sup>27</sup> demonstrated that the Stanford Professional Fulfillment Index (SPFI) could be used as a suitable instrument to assess occupational burnout in hospital medical staff during the COVID-19 pandemic. SPFI is a 16-item questionnaire that includes burnout—according to workload exhaustion and interpersonal disengagement (depersonalization)—and professional fulfillment. Workload exhaustion and interpersonal disengagement correlate with the two MBI subscales (i.e., emotional exhaustion and depersonalization), while professional fulfillment correlates with “quality of life.” As a competitive advantage, MBI can assess burnout and professional fulfillment among healthcare providers over the “past two weeks.”<sup>28</sup> Yıldırım and Solmaz<sup>29</sup> also presented the COVID-19 Burnout Scale (COVID-19-BS) by modifying the items of the Burnout Measure-Short Version (BM-SH) based on COVID-19. The COVID-19-BS consists of 10 items; each scored on a 5-point Likert scale (1 = never to 5 = always). Thus, the total score of the questionnaire ranges from 10 to 50. Higher scores indicate higher levels of

COVID-19–related burnout. A suitable COVID-19-BS’s reliability and validity have been reported among the general public in Turkey.<sup>28</sup>

### *Treatment and prevention*

Occupational burnout can be prevented if healthcare providers become aware of the risk factors and prepared for possible occupational stress. As recommended by the WHO and the International Labour Organization,<sup>29</sup> local task forces of psychologists need to make training and supervision available to the healthcare professionals and make them capable of providing appropriate emotional and psychological responses during a calamitous incident, such as the COVID-19 outbreak. Such awareness can reduce the stigma of mental health problems, including occupational burnout, by increasing resilience among healthcare workers.<sup>30</sup> Besides, based on the suggestions of the International Federation of Red Cross and Red Crescent Societies,<sup>31</sup> healthcare providers need to be trained so that they can optimally manage their psychological responses to catastrophes. Thus, they reach personal and social protective factors that may enhance their resilience. Furthermore, anxiety and stress are closely associated with one’s work environment. Therefore, the development of interventions to take work environments into account may be effective in diminishing occupational burnout.<sup>32</sup> Based on the study conducted by Dewey et al.,<sup>33</sup> practical information should be provided by healthcare organizations on stress management and occupational burnout reduction strategies. They also need to share success-based real stories rather than stress- and failure-based experiences. The authors also recommended that professionals should develop evidence-based interventions and adapt them to certain workplace configurations. This is because supportive work culture is assumed to be vital to elevating the healthcare professionals’ resilience during a disastrous crisis, such as COVID-19. Given the negative correlation between nurses’ resilience and occupational burnout,<sup>34</sup> this evidence suggests that resilience plays a key role in preventing occupational burnout, which should be incorporated during the COVID-19 pandemic. In this respect, Sultana et al.<sup>35</sup> suggested that evidence-based intervention should be developed to address occupational burnout during this pandemic. In sum, such interventions consist of an increase in the awareness of work-related stress and occupational burnout, insurance of effective mental health services, promotion of mindfulness, use of digital technologies for delivering mental health interventions and addressing work-related stress, and improvement of organizational policies and practices for emphasizing the necessity of coping with anxiety and stress among healthcare providers. However, a recent meta-analysis has suggested that occupational burnout preventive programs among hospital medical staff members are related to minor benefits, which may be enhanced by adopting organization-directed approaches. This finding supports the notion that occupational burnout is a global problem of healthcare organizations, rather than individuals.<sup>36</sup> Figure 2 shows the



**Figure 2.** Controlled interventions to reduce occupational burnout among healthcare workers in the time of the COVID-19.<sup>2,16,35–39</sup>

management of occupational burnout among healthcare workers using both organizational measures and personal interventions.<sup>2,16,35,36–39</sup>

## Conclusion

Based on recent investigations, some healthcare workers have developed occupational burnout while facing the COVID-19 crisis. Thus, it is required to assess the effectiveness of specific interventions in preventing occupational burnout due to its harmful impacts on healthcare providers and organizations. Current evidence demonstrated that healthcare staff could gain significant benefits from interventions to modify burnout syndrome, especially from organization-directed interventions. So, health policymakers and practitioners should adopt such interventions and develop context-specific approaches promoting a healthy workplace and averting burnout during the COVID-19 crisis.

## Authors' contributions

All authors have contributed significantly, and all authors agree with the content of the article.

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