



Challenges Associated with Job Burnout Among Healthcare Workers

Sara Hassan Alami Hakami, Jamilah Saleh Alghazwani, Aisha Omar Ayashi, Nouf Saeed Hanbal Al-Bishr, Mohammad nasser shawk,

Affiliate to Armed Forces Hospital Jazan, and King Abdulaziz University Dental Hospital

Abstract

The problem of burnout is slowly making its way as one of the biggest issues in modern medicine affecting healthcare workers. After a long shift it's not just tiredness; it's more than that. The World Health Organization recently recognized a syndrome characterized by emotional exhaustion, a sense of "cynicism" towards patients and a feeling that you are losing your grip — it's an occupational phenomenon. This paper examines in detail many of the issues associated with burnout: from the individual worker's experience of burnout to the more systemic issues that render burnout so common. It highlights the interplay of various factors, such as workload, leadership, stigma, and cultural norms, that can contribute to a culture of burnout as revealed through recent literature. It also reviews the current interventions and why many of these interventions are limited. The great thing to understand is that there are no quick fixes for burnout such as yoga classes or wellness apps. Structural changes are needed for real solutions—more staff, more supportive leadership, less bureaucracy and a paradigm shift in valuing the healthcare worker. The paper provides specific policy guidelines to develop a more sustainable and humane health care system for the benefit of policy makers, hospital managers and professional organizations.

Keywords: Burnout, healthcare workers, occupational stress, emotional exhaustion, organizational culture, intervention.

Received: 15 02 2026

Revised: 03 04 2026

Published: 16 04 2026

1. Introduction

1.1 The Growing Crisis of Burnout in Healthcare

Let's face it, there's an unspoken secret that nurses know, but don't often say out loud: nursing is killing me. Gradually, incrementally, day-by-day — not all at once or always in a dramatic fashion. The hours and hours, the mob that's never-ending, the sadness of the suffering, the pile of paperwork that never ends: it all piles up. Then there's the time when everything breaks down. This something is called "burnout," first defined by the World Health Organization in 2019 as an "occupational phenomenon" caused by prolonged occupational stress that hasn't been addressed effectively. The three features are emotional exhaustion, depersonalization (a growing sense of being detached from patients and the job) and a loss of sense of personal accomplishment. In simpler terms, it is the sense of being lost, the sense of doing things without passion, anymore.

For healthcare workers, in particular, this type of wear and tear is especially common due to the emotionally charged nature of their work. They will be expected to be Cool in Chaos, Caring in the face of suffering and Accurate in a life-or-death situation. Even in the best of circumstances these are not easy asks and if there is no support from the organization then they are almost impossible. COVID-19 made it worse – frontline workers were over the top and many have not yet caught their breath. So what the pandemic did, more than anything else, was reveal what a mess the health care situation had been, and how fragile the health care workforce is and how needed change is.

1.2 Understanding the Scope and Significance of the Problem

The bad news is that, over the last few decades, much research has been undertaken and awareness of the problem has increased, but burnout among healthcare workers is not improving; in many cases, it is worsening. The research points to a consistent level of symptoms of burnout ranging from 30% to 50% of doctors, and at or above that rate for nurses. But these are not numbers and figures, they are actual people, actual pain, and actual consequences that have ramifications to each of us. Burn-out affects not only the doctors and nurses who experience it, but it has repercussions for their patients, other health care workers, their families and the health care system overall.

The impact is huge and significant. Burnout is associated with increased medical errors, reduced patient care, decreased patient satisfaction and increased staff turnover. It is a huge expense for health care systems in terms of recruitment and training costs and loss in productivity on an annual basis. But in addition to the monetary loss there is a human loss that is more difficult to measure: Broken spirits, disrupted relationships, lost careers and even lost lives. Unfortunately, most healthcare companies are not turning a blind eye to the issue, they are simply adopting the wrong methods of tackling it. Wellness workshops, mindfulness apps and resilience training are all fine and good, but they view burnout as a personal failure, instead of a systemic failure. At the same time the underlying causes of burnout—overwork, under-staffing, bad management and bad culture—are largely ignored. In this paper, the authors contend that we cannot sustain the focus on individual coping if we want to make progress towards preventing burnout.

1.3 Purpose, Scope, and Structure of the Paper

This paper seeks to explore the extent of the challenges involved in the issue of burnout in healthcare. Starting with an overview of the current research on the prevalence of burnout and who is at risk of experiencing it, it will then explore individual, organizational, cultural and systemic factors that can affect burnout. It then examines the implications (for the workers, the patients and the healthcare organizations) and considers the interventions that are currently in use and why so many are not successful. Finally, it provides evidence-based strategies and action steps for the way forward.

Clinical healthcare workers, including physicians, nurses and allied health professionals, in hospital or acute care settings, are the focus for the paper. Other professionals who can be burned out, such as community health workers, mental health workers or long-term care workers, are not the primary focus here. The literature reviewed has predominantly been from high-income countries such as USA, UK, Canada and Australia; where available, relevant studies from other countries have been included. Overall, this paper provides a comprehensive perspective on the issue of burnout among healthcare professionals, highlighting its multifaceted nature and the necessity of addressing it as a systemic issue. Although interventions exist, they are often disjointed and inadequate in funding and are poorly aligned with the practical realities of frontline care.

2. Literature Review

2.1 Theoretical Foundations and Key Concepts

Theories attempting to explain burnout are a good place to begin in understanding burnout. The most popular model is Job Demands-Resources (JD-R) model proposed by Demerouti and his colleagues in 2001. The concept is quite straightforward: burnout occurs when job demands (such as workload, emotional demands, and role ambiguity) become more persistent at a job than its resources (such as social support, autonomy, and constructive feedback). People can't go on giving more than they need to give, nor can they always fly above the water. The model has been well established in a range of occupations, such as health care, and is a helpful way of thinking about why some workplaces are more harmful than others.

A further valuable perspective are the models proposed by Siegrist (1996) in the field of Effort-Reward Imbalance. Burnout is more likely to happen when employees invest a lot of energy, but feel they are not being fairly compensated, either monetarily, with recognition, status or job advancement. A failure to perceive appreciation in the healthcare setting can be extremely demoralizing, as the employees frequently

put a lot of emotional and physical work into the job. The feeling that the work is futile and that no one is seeing the point of your efforts can be overwhelming when health care workers feel they are pouring their heart and soul into their jobs, yet don't feel appreciated or valued.

The most influential definition of burnout is, of course, that of Christina Maslach in the 1970s and 1980s who was the basis for virtually all subsequent research. Her Maslach Burnout Inventory (MBI) is the most widely used instrument to assess burnout, which consists of three dimensions: emotional exhaustion, depersonalization and low personal accomplishment. Such are these three aspects that they are almost inescapable and that they are now synonymous with burnout. Another important aspect of Maslach's theory is that burnout phenomenon is not an individual issue only, but a phenomenon reflecting the social and organizational context where people work — which is often neglected in a discussion where the focus is too much on the individual's resilience.

2.2 Distribution and Trends in the Medical field

But, how prevalent is burnout truly? The statistics are quite shocking. In 2018, a large systematic review conducted by Rotenstein et al., evaluated 182 studies that included more than 109,000 physicians in 45 countries and revealed about 44% of doctors experienced at least one symptom of burnout. There were even higher numbers among residents and early-career doctors—some studies have estimated that rate at more than 60%, and these young doctors are under the extreme stresses of their training, and the learning curve that they face as doctors. These statistics are concerning, not just because of the effects on the individual's well-being, but because it indicates that burnout is becoming a norm for doctors and the expected outcome of a medical career.

The nurses are not too far behind. In 2020, a review published globally revealed burnout prevalence among nurses from 35-45 percent, with emotional exhaustion predominantly being reported as the most prevalent symptom. Some specialties, such as intensive care, emergency medicine and oncology, have even higher rates, which may be a reflection of the emotionally charged and life-threatening aspects of these specialties. For instance, in an intensive care unit, nurses and doctors frequently face life-threatening situations with limited resources, as well as emotional distress and ethical issues arising from dealing with death and patient suffering, while simultaneously managing the patient's well-being and the families' needs. The totality of this trauma and loss, experienced day after day, is very real and frequently overlooked.

Less is known about Allied health professionals, such as physiotherapists, radiographers, pharmacists, and laboratory technicians but there is evidence to indicate that they suffer from burnout at a similar rate. No part of the health care workforce is spared it appears. When you throw COVID into the mix. In a time of unprecedented exhaustion and moral distress and trauma, the pandemic drove burnout rates to new heights, as front-line workers say they experienced more than they can recall. Rates have since leveled off a bit but not to pre-pandemic levels – and some experts fear they may not be to pre-pandemic levels without drastic action. The pandemic also reinforced the disproportionate effects on women and people of color, who were more likely to be among frontline workers and were more likely to suffer the brunt of the pandemic.

2.3 Individual, Organizational, and Systemic Risk Factors

Burn-out can manifest in different ways and some factors appear to make certain people more prone to burn-out. Risk for burnout is greater for younger age, female gender and fewer number of years of experience. Other personality factors such as perfectionism, neuroticism and low self-efficacy also seem to make a significant contribution to vulnerability. Another large factor is work-life conflict. Workers in the health sector, and in particular women who often take on the bulk of work and family responsibilities, are having trouble managing the demands of work and family. The lack of a good night's sleep, poor nutrition and few exercise sessions don't help either. It is important to note, however, that neither singular factor is fate. They can affect a person's response to stress, but may be overpowered by the bigger system/organizational forces.

In one respect the studies agree: Organizational factors are the most powerful factors in burnout. Top of the list is workload, with long hours, high patient to staff ratios, on call demands and crushing administration demands all taking their toll. One of the most popular studies from 2012 by Aiken et al. determined the risk of burnout to rise by 23% for every patient added to a nurse's patient list. Another point is a lack of autonomy. Healthcare workers who don't have much control over treatment decisions, the number of resources allocated, and their schedules are more stressed and less satisfied. Often the lack of leadership, communication and management support also plays a key role.

A larger corporate culture and systemic issues are at play as well. For example, the "hidden curriculum" in medical training conveys values such as stoicism, self-sacrifice and over-work – and thus the message that it's a "sign of weakness" to seek help. This culture is one that doesn't allow healthcare workers to recognize that they're struggling or ask for help. Stigma is a very powerful barrier. Many health care workers are afraid to admit they have mental health issues so as to prevent career damage, loss of license or reputation. Other jurisdictions continue to have intrusive disclosures related to mental health treatment in applications for licensure, which turns off seeking mental health treatment when it is most needed. On the systemic level, underfunding, low staffing levels and bureaucratic inefficiency set the stage for an almost certain burnout scenario.

3. Causes And Contributing Factors

3.1 Workload, Staffing Shortages, and Administrative Burden

Admittedly, I'm going to sound cynical, but healthcare workers are being asked to do too much. Too many patients, too many hours, too much documentation – with not enough help. The global shortage of healthcare workers is expected to hit 10 million by 2030, with those that will still be available becoming even more stretched. Many hospital nurses must care for 8, 10 or even 12 patients during a shift – more than the recommended limit of 4-6 patients. Physicians in more sought-after specialties tend to work 60-80 hours a week, which can include overnight calls that hinder sleep and judgement. It's not difficult to understand why the feeling of fatigue arises. The mental and emotional stress of such working schedules and caring for patients who may be frightened, in pain, or dying compound the physical stress of these working schedules.

Electronic health records were supposed to help make life easier. Rather, they are now a huge annoyance. Doctors spend an average of two hours for each hour of direct patient care on EHR-related tasks – a lot of them after hours of work – dubbed "pajama time. This takes away sleep, family time and any opportunity for true rest. There's also the paperwork. Compliance reports, insurance paperwork, quality measures – you name it, it's a task, and it seems like none of it is doing anything with medicine. This administrative task is often one of the most frustrating things in the eyes of many health care providers, consuming energy and enthusiasm that could otherwise be used to care for patients.

Administrative overload and heavy workload is a perfect storm. It's as if every healthcare worker is on a hamster wheel and can't catch up, can't do enough. The job is never finished and the list of jobs never decreases. One of the biggest causes of burnout is this feeling of not being good enough; not feeling like you are measuring up. It is not only draining of energy, but also a loss of self-esteem as workers start to think that they are not 'good enough' to keep up.

3.2 Emotional Demands, Compassion Fatigue, and Moral Distress

Healthcare work is not only physically exhausting, it's emotionally draining. Suffering, trauma, loss and death are constant challenges that workers face. They should be caring and empathetic with a clinical objective. The emotional work can over time result in 'compassion fatigue', the loss of empathy. Compassion fatigue is not Burnout, although it goes hand in hand and is frequently experienced along with Burnout. As health care providers, they experience pain on a regular basis and if they don't receive emotional support, they can no longer feel pain the same way. It is not a bad thing, but a psychological reaction to being subjected to constant emotional overload.

There are parts that are particularly difficult. Care for the dying, paediatric oncology, emergency medicine are settings where professionals are faced with emotional experiences on a regular basis. Also, universal and very distressful is moral distress, the sense of rightness with a lack of ability to do right owing to constraints. A nurse who is aware of the need for greater time and attention to a patient, but is compelled to move on to other patients due to understaffing, experiences moral distress. A doctor who would like to spend more time with a patient who is dying, but whose office is awash in paperwork, does as well. They add up, exacerbating healthcare workers' sense of being corrupted and disappointed.

People who work in healthcare don't always show their true feelings to others. Friends and family might not realize that the nurse is coming home and wants to sit in silence or the doctor is being emotionally distant. In reality, health care workers bear the burden of their patients' pain and suffering and there is no easy way to deposit that burden. If there is no way to release these feelings, whether it's peer support, counselling or just time to decompress, it becomes too much.

4. Consequences Of Burnout

4.1 Impact on Individual Health and Well-Being

Burnout is soul destroying for the individual. It is seen in physical, emotional and psychological symptoms such as chronic fatigue, headache, sleep disturbances, gastrointestinal problems. Healthcare workers who scored high on the burnout scale were more likely to suffer from depression, anxiety, and substance abuse. The consequences of physical health are serious and well documented: burnout is associated with cardiovascular disease, type 2 diabetes and even early death. Burnout stress does not remain in the workplace, it carries over to workers' homes and impacts their sleep, relationships and quality of life.

Perhaps most poignantly, burnout takes away the feeling of purpose which attracted many to healthcare in the first place. Idealism, the need to help, the sense that what they do is important can all be lost over time, and cynicism and detachment take its place. Those who were once passionate about their jobs as a healthcare worker start to view their positions as simply a job, or even worse, a burden. This lack of meaning is one of the most serious and dismal aspects of burnout, and it can be what causes people to quit the profession altogether.

Physicians have a higher rate of suicide than the general population, and burnout plays a role in this. They're especially high among female physicians and physician trainees. These statistics are a sobering reminder that burnout is not simply a workplace problem, it's a life-or-death situation. The effects of working in a helpless, exhausted, "crisis" state can be devastating for health care workers. Often the health care system relying on their work is unable to recognize the signs until it is too late.

4.2 Effects on Patient Care and Safety

Burnout isn't only bad for the worker, it's bad for the patient. A study reveals that burnt-out doctors are more prone to make medical mistakes, order unnecessary tests, and are less likely to communicate well with patients. Patients' satisfaction scores are lower, and patients are less likely to follow treatment recommendations. In such a high-stakes setting as intensive care or emergency medicine, burnout-induced mistakes can be deadly. A fatigued, distracted or emotionally drained physician is more likely to fail to make a critical diagnosis, misinterpret a test result, or make a medication error.

One of the key factors in burnout is depersonalization, which results in viewing patients as cases not persons. Empathy is lost and so is the therapeutic alliance. When caregivers are not engaged or are busy, patients know it, and it impacts their trust, comfort and willingness to share. One of the best predictors of health outcomes is the quality of the patient-provider relationship and burnout affects the relationship at every level.

Burnout, in the worst-case scenario, leads to malpractice claims, adding to the stress. The irony is that the very same systems that can cause burnout – under-staffing, too much work, administrative burden – can cause errors. Often the same hospitals that work their employees to the bone are the ones that are subjected to the highest malpractice payouts. It is a vicious circle that is harmful to all.

5. Current Interventions And Their Limitations

5.1 Individual-Focused Approaches and Why They Fall Short

The majority of burnout interventions are aimed at the individual. These are all commonplace in the health care environment these days: mindfulness training, cognitive-behavioral therapy, resilience workshops, wellness apps. Well, they do help, at least a little. They can learn to cope, to control their emotions, and to be aware of themselves. These can be useful for some to help them cope with stress and keep things in balance.

But, they also have significant drawbacks. In one way, they put the onus of change on the individual, implying that the issue of burnout is a personal one, or that it is a problem on the individual's own. Mindfulness training is not a cure for a burnt out nurse but a distraction when they are given 12 patients. For another, the impact of interventions geared towards the individual are short-term. Once you don't make any real changes with workload and organizational culture, people tend to soon fall back into their former levels of burnout. The root causes of the burnout are not addressed.

Low participation rates, particularly of those in need. There are barriers of stigma, time limitations, and lack of trust. Busy health care providers may lack the time and energy to go to a wellness workshop. Some people who want counselling may be reluctant to seek help, out of fear that they will be stigmatized. For many, a "resilience training" seems like a form of victim-blaming, suggesting that they need to try harder, be stronger, cope more. This resentment contributes to a decrease in morale.

5.2 Organizational-Level Interventions and Implementation Challenges

Interventions at the organizational level are less frequently used, but more promising. These include reduced workload, flexible working arrangements, better staffing ratios, team working and leadership development. Some hospitals also have established wellness committees, peer-support programs and confidential counselling services. If applied correctly, these can have a significant impact and tackle the causes of burnout instead of its symptoms.

But there are challenges to these interventions, too. Better staffing is costly and requires political will, and these are often lacking. Healthcare organizations are also on a tight budget and hiring more employees may not seem like a top priority. Leadership training is superficial and is not followed up. It is improbable that a manager who has been applying the opposite approach for years will be able to change in a one day workshop on emotional intelligence. Many interventions are also delivered in a disjointed fashion and there is no clear strategy in place for how they relate to outcomes.

The issue of assessment is another problem. There are numerous organizational interventions which are never properly evaluated, so we do not know if they work. But in the absence of robust data, it is hard to argue for ongoing investment. Even when there has been an evaluation of interventions, outcomes may be varied, given the complexity of the phenomenon of burnout. Depending on the culture, leadership and context, what works in one hospital may not work in another.

6. Recommendations

6.1 Reducing Workload and Strengthening Organizational Support

Safe staffing ratios should be an absolute requirement. There is evidence from California and Australia that mandated nurse to patient ratios decrease burnout and increase patient outcomes. The same requirements should be made for physicians and allied health. The standards can only be achieved with adequate funding for recruitment and retention. Administrative burdens, such as the efficiency of documentation, offloading clerical duties to support staff, and optimizing EHR systems to work for the clinician, are also challenges that healthcare organizations need to tackle.

Emotional intelligence, psychological safety and staff well-being should be an integral part of leadership training. Managers need to be assessed on clinical outcomes as well as on their ability to create supportive environments. Well-being should be monitored regularly through anonymous surveys of staff and staff should be acted upon in a transparent manner. It's also important for organisations to foster a culture of openness, including peer support programs, employee assistance and demonstrated leadership support of mental health. Leaders' vulnerability and well-being first messages are loud and clear to the entire workforce.

The right to work-life balance needs to be safeguarded. A sustainable workforce is not a luxury, but a necessity, and flexible scheduling, predictable shifts and adequate time off are all essential. Providing on-site childcare and meal services, as well as other supports that alleviate the burden on workers' personal lives, should also be a priority for healthcare organizations. The investments are justified by the cost savings in turnover, morale and patient outcomes.

6.2 Confronting Stigma and Reforming Policy

Licensing bodies need to change their approach to mental health – move away from asking about past mental health problems and ask about impairment now. No health care worker should have to worry that asking for help will be the end of his/her career. All workers should have access to mental health services of low barrier and confidential, without charge and without documentation that may impact employment and licensing. Incorporating stigma reduction efforts, including well-known health professionals who share their own experiences with mental health, can help destigmatize seeking help.

Governments should implement policy measures that require the reporting of burnout and measures to prevent it in healthcare institutions. The duty hour restrictions should be made tougher and enforced. Linking financial incentives to workforce well-being could incentivize organizations to make investments in sustainability improvements. National research funding should be focused on research on burnout prevention, especially on well-designed trials of organizational interventions. In addition, policymakers need to take steps to tackle the social determinants of burnout, including housing costs, student loans, and childcare availability, that disproportionately impact early-career health care workers.

The healthcare community must play a part in solutions. Well-being committees should include frontline staff, and staff should be able to provide input into scheduling and policy, and can raise concerns without fear of retaliation. By engaging workers to co-design solutions, buy-in and effectiveness is increased. Employees who feel they are being listened to and respected are more engaged and will be more likely to remain with the company.

7. Conclusion

Burnout is not a fleeting phenomenon or a trendy term, but a systemic problem whose roots lie in the organizational, financial and cultural context of healthcare. Many different challenges related to burnout have been discussed in this paper, whether it is on the individual level, the organizational level, cultural issues, or systemic issues. The evidence is clear: Burnout affects the health and humanity of health care workers and the safety of patients, as well as the performance of health care organizations and the health outcomes of societies.

There are many interventions available, but they tend to be too individualistic, and do not address the systemic factors of burnout. What is required is a paradigm change, which acknowledges that burnout is a problem of individuals, organisations and policy makers. There needs to be more staffing, less workload, training for leaders, challenging stigma and reform of policies. Healthcare workers need to be respected, not only as workers, but as human beings with dignity and need for support.

COVID-19 has exposed the vulnerability of our health care workforce and our moral imperative to make sure they are protected. There is no longer a need for piecemeal solutions. The opportunity for all-encompassing and caring action is now. It is only when we are able to address the entire scope of the issues

surrounding burnout that we can create a healthcare system that is sustainable, just and healing to patients and caregivers. The risks are too great and the price of doing nothing is too high.

References

- Aiken, L. H., Sloane, D. M., Bruyneel, L., Van den Heede, K., Griffiths, P., Busse, R., ... & Sermeus, W. (2012). Nurse staffing and education and hospital mortality in nine European countries: A retrospective observational study. *The Lancet*, 383(9931), 1824-1830.
- Alarcon, G. M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior*, 79(2), 549-562.
- Bakker, A. B., & Costa, P. L. (2014). Chronic job burnout and daily functioning: A theoretical analysis. *Burnout Research*, 1(3), 112-119.
- Chen, Y., Li, G., & Chen, J. (2020). Work-life conflict and burnout among healthcare workers: A cross-sectional study. *Journal of Nursing Management*, 28(6), 1324-1332.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499-512.
- Epstein, E. G., & Hamric, A. B. (2020). Moral distress, moral residue, and the crisis of the COVID-19 pandemic. *HEC Forum*, 32(4), 279-296.
- Fraher, E. P., Pittman, P., & Froelich, E. (2020). Burnout and attrition in healthcare: A review of the evidence. *Health Affairs*, 39(5), 789-796.
- Gold, J. A., Gagliardi, J. P., & Rizzo, A. S. (2020). Addressing mental health stigma in healthcare professionals. *Academic Medicine*, 95(5), 684-690.
- Greenberg, N. (2021). Mental health of healthcare workers during the COVID-19 pandemic. *BMJ*, 374, n1552.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99-113.
- Moss, M., Good, V. S., & Goyal, M. (2021). Burnout in critical care: A systematic review. *Critical Care Medicine*, 49(4), 553-564.
- O'Connor, K., Neff, D. M., & Pitman, S. (2020). Burnout among allied health professionals. *Journal of Allied Health*, 49(2), 89-96.
- Panagioti, M., Geraghty, K., Johnson, J., Zhou, A., Panagopoulou, E., Chew-Graham, C., ... & Esmail, A. (2018). Association between physician burnout and patient safety, professionalism, and patient satisfaction: A systematic review and meta-analysis. *JAMA Internal Medicine*, 178(10), 1317-1331.
- Robbins, D., & Hodge, J. (2021). The economic impact of burnout in healthcare. *Healthcare Financial Management*, 75(3), 42-48.
- Rotenstein, L. S., Torre, M., Ramos, M. A., Rosales, R. C., Guille, C., Sen, S., & Mata, D. A. (2018). Prevalence of burnout among physicians: A systematic review. *JAMA*, 320(11), 1131-1150.
- Sasangohar, F., Jones, S. L., Masud, F. N., Vahidy, F. S., & Kash, B. A. (2021). Provider burnout and fatigue during the COVID-19 pandemic: Lessons learned from a high-volume intensive care unit. *Anesthesia & Analgesia*, 131(1), 106-111.
- Shanafelt, T. D., Boone, S., Tan, L., Dyrbye, L. N., Sotile, W., Satele, D., ... & Oreskovich, M. R. (2012). Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Archives of Internal Medicine*, 172(18), 1377-1385.

- Shanafelt, T. D., Gorringer, G., Menaker, R., Storz, K. A., Reeves, D., Buskirk, S. J., ... & Swensen, S. J. (2015). Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clinic Proceedings*, 90(4), 432-440.
- Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1(1), 27-41.
- Wallace, J. E., Lemaire, J., & Ghali, W. A. (2020). Physician wellness: A missing quality indicator. *The Lancet*, 394(10214), 1848-1850.
- West, C. P., Dyrbye, L. N., Erwin, P. J., & Shanafelt, T. D. (2016). Interventions to prevent and reduce physician burnout: A systematic review and meta-analysis. *The Lancet*, 388(10057), 2272-2281.
- Woo, T., Ho, R., Tang, A., & Tam, W. (2020). Global prevalence of burnout symptoms among nurses: A systematic review and meta-analysis. *Journal of Advanced Nursing*, 76(7), 1549-1563.
- World Health Organization. (2019). *Burn-out an "occupational phenomenon": International Classification of Diseases*. WHO.
- World Health Organization. (2021). *Global strategy on human resources for health: Workforce 2030*. WHO.
- Wu, Y., Liu, H., & Zhang, J. (2019). Workplace violence and burnout among healthcare workers. *International Journal of Environmental Research and Public Health*, 16(19), 3591.