

HELPING CLINICIANS HELP PATIENTS

Facilitating the
Transition into the
Clinical Learning
Environment

CPR

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Chapter 4

CHALLENGES IN MEDICAL TRAINING DURING PANDEMICS

Chapter 4 discusses the prevalence of stress and burnout among clinicians, its negative implications for patient care, and how the COVID-19 pandemic impacted the entire healthcare industry—and medical education in particular. Ch. 4 also explains how the program's unique approach can improve medical education in future pandemics.

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CHAPTER 4:

CHALLENGES IN MEDICAL TRAINING DURING PANDEMICS

The COVID-19 pandemic has certainly shaken the world as we know it, highlighting the limitations and shortcomings in our national preparedness.

Bill Gates, the American philanthropist and co-founder of Microsoft Corporation, warned of the potential for a deadly pandemic in 2015 during the Ebola outbreak. “If anything kills over 10 million people in the next few decades, it’s most likely to be a highly infectious virus rather than a war — not missiles, but microbes.” He felt there were no systems in place to deal with the next pandemic; five years later it became evident that the world was still not prepared as the COVID-19 pandemic outbreak spread around the globe.

The COVID-19 pandemic has killed over one million people in the U.S. since February 2020 and has been compared to Pearl Harbor and the September 11 World Trade Center attack in terms of catastrophic events. The healthcare providers working on the front lines of the COVID-19 pandemic will be remembered as heroes, just like the first responders who rushed to the scene after the World Trade Center attacks. And just as the country rallied to care for the September 11 first responders who suffered long-term health effects, we must take responsibility for the well-being of our front-line healthcare professionals.

Health emergencies will come and go; however, this pandemic has pointed to areas in our healthcare system that could be improved in order to prepare for

HEALTHCARE SYSTEM UNDER PRESSURE:

Hospitals and healthcare clinicians were not prepared to handle the impact of the pandemic, and many had concerns about the collapse of the healthcare system and its ability to provide proper care to ALL patients. Other consequences that seriously impacted the care of patients were increased clinician burnout and PTSD. A Yale [study](#) found that rates of depression and post-traumatic stress disorder (PTSD) have spiked among healthcare professionals since the pandemic hit, with nearly one quarter of healthcare workers showing signs of PTSD and almost half exhibiting signs of alcohol use disorder. According to a 2019 [study](#) published in *Annals of Internal Medicine*, researchers estimated \$4.6 billion in burnout-related costs, and that was *prior* to the COVID-19 pandemic. [U.S. News & World Report](#) stated that the number of clinicians reporting symptoms of burnout has significantly increased since the pandemic began.

the future. The crisis has shown that while medical science and technology move forward, healthcare professionals remain the most important resources in a medical emergency.

THE IMPACT OF COVID-19 ON CLINICIANS

Stressed Clinicians: Even before the COVID-19 crisis, the healthcare practice environment was changing significantly, creating additional substantial stressors for clinicians, and leading to declining clinician satisfaction and well-being. These stressors included lack of resources, erosion of professional autonomy and loss of control, changes in the insurance industry and decline in compensation, time-constrained patient care, and increased clerical burden. As a result, the prevalence of stress and burnout among clinicians was already higher than in any other comparable professional group and double the rate of the general population of the United States. National studies reported that about half of the physicians and nurses in the U.S. were experiencing professional burnout.

THE NEGATIVE IMPLICATIONS OF BURNOUT AMONG HEALTHCARE PROFESSIONALS BEFORE COVID-19

BURNOUT AND DEPRESSION AMONG PHYSICIANS

Burnout and stress impact commitment and dedication among healthcare professionals, as well as cause erosion in professionalism, reduction in quality of care, and increased medical errors. Studies suggest that:

- Professional burnout is experienced by at least half of U.S. physicians
- The prevalence of burnout among U.S. physicians is higher than among their peers in the general population
- Burnout among U.S. physicians is getting worse
- Physicians' work-related stress negatively impacts patient outcome
- More than 50% of physicians believe that tiredness, exhaustion, or sleep deprivation negatively affect patient care
- Recruitment and retention rates plummet as stress and burnout increases
- Physicians who are highly dissatisfied with their work have increased probability of changing jobs within medicine or leaving medicine entirely
- Unhappy physicians are more likely to provide suboptimal care, such as prescribing inappropriate medications, which can lead to costly complications
- As stress increases, turnover rates rise and contribute to the increasing costs associated with recruitment and retention of physicians; excessive job stress, burnout, and dissatisfaction are closely related to job and career turnover
- The total cost of replacing one family physician approaches \$250,000
- Physicians are twice as likely to commit suicide as non-physicians
- An average of 300-400 doctors commit suicide every year
- Stress and burnout experienced by physicians impedes recruitment of the best and the brightest individuals into medicine and into some medical specialties
- The burnout rate for medical faculty has been reported to range between 20 and 49%
- Medical training involves numerous risk factors for mental illness, such as role transition, decreased sleep, relocation resulting in fewer available support systems, and feelings of isolation
- Distress and burnout peak during medical training
- Rates of burnout in the first year of residency are reported to increase from 4% to 55%
- About one third of medical residents report depressive symptoms in the first year of residency training
- Medical trainees have higher rates of depression than other graduate students in the general public
- Burnt-out residents have been identified as being significantly more likely to provide suboptimal patient care or commit medical errors
- Despite the fact that medical trainees are at high risk for depression and suicidal thoughts, training programs have not been able to provide treatment for these residents and fellows in a systematic way

Emotional Burden: The work that clinicians perform is different from the daily activities of the average businessperson. Clinicians wrestle daily with life-and-death issues and experience the fear, pain, and grief of patients and their families. They carry an emotional burden that sets their work apart from that of other professionals. Unwell clinicians are at an increased risk of substance abuse, relationship problems, depression, and even death. Clinicians also experience high rates of emotional exhaustion and depression, as well as substance abuse, troubled marriages, and divorce.

Post-Traumatic Stress Disorder (PTSD): Prior to the COVID-19 crisis, healthcare providers were already at risk for PTSD, especially front-line clinicians facing demanding work schedules while coping with traumatic experiences, serious injuries, and death. The pandemic brought healthcare workers face-to-face with a powerful and invisible adversary that endangered their own physical and mental health, while also taking a tremendous toll on their patients and colleagues. The resultant trauma and stress further exacerbated the risk of PTSD in clinicians. With the unparalleled impact of the pandemic, caring for healthcare providers has never been more urgent. Given the magnitude of potential safety issues and organization-wide financial impacts following the COVID-19 crisis, the toll on clinician well-being has far more serious consequences than before. In order to improve patients' health and their experiences in the hospital, and to reduce the cost of care, it is essential to improve the well-being and work-life of those who care for them.

Suicide: Physician suicide has been another major concern in recent years. Prior to COVID-19, physicians were twice as likely to commit suicide as non-physicians, according to the American Foundation for Suicide Prevention, with 300 to 400 doctors committing suicide every year — more than double the rate of the general population and the equivalent of several graduating medical school classes. Nurses and other clinicians experience similar effects on performance, health, and well-being. The pandemic likely further increased this risk of suicide due to accelerated work demands, social isolation, decreased self-care, and greater exposure to emotionally traumatic events at work and home.

Clinician Shortages: Another potentially long-term consequence of burnout, which may have been underestimated, is a shortage of physicians by 2025. This shortage was already projected by the U.S. Department of Health and Human Services. The plan was to address this shortage by recruiting international medical graduates, which already had its own challenges in regard to cultural adjustments and other unique stressors. The emergence of future variants or pandemics may present additional challenges in recruiting foreign medical graduates (FMGs) to the United States due to potential government travel restrictions implemented to contain the spread.

THE IMPACT OF COVID-19 ON MEDICAL EDUCATION

The COVID-19 experience will hopefully serve as a warning, leading to the development of effective systems that will better deal with future pandemics. Naturally, the first and primary focus is on patient care and well-being. However, the pandemic also has serious implications for medical organizations, clinicians, and medical education. Now more than ever, it is important for healthcare organizations and institutions to create an infrastructure to support clinicians in future pandemics.

The full impact of COVID-19 on medical training has been significant. At the height of the outbreak, many medical schools cancelled on-site training in an attempt to contain the spread of COVID-19, decrease the risk of exposure, and protect both students and patients. The replacement of personal interaction with online experiences created a loss of important personal contact for these future clinicians. Trainees learn a tremendous amount on these rotations: observing their senior clinicians taking care of patients; developing mentorship relationships; and receiving informal training about interaction with patients, their families, and the entire healthcare team, which neither their textbooks nor technology can provide. Skills acquisition and relationship-building are two serious issues which medical training must prioritize going forward.

Transitioning to clinical training during the COVID-19 era presented a challenge as well. Under the reality of social distancing orders, supervising and training new clinicians during their first year of training at hospitals swamped with infected and gravely ill patients was difficult, at best. Developing clinical skills during the COVID-19 pandemic meant adjusting daily routines to embrace new norms while surrounded by uncertainty.

Creative thought should be applied to additional modes of instruction if the standard clinical teaching cannot be applied, as occurred in the beginning of the pandemic. For example, how might distance learning affect the mentoring relationships that often lead to an academic career and learning in general? These questions will need to be carefully considered to ensure the sustainability of post-graduate medical training. If future clinicians' learning is mostly web-based again, the need for carefully structured personal encounters and in-person interaction at work sites will be even greater, especially for the helping professions. In these challenging times, it is important for graduate medical education to invest in programs that facilitate the exchange of best practices among clinicians, and to develop operational systems so that the training of future clinicians is not disrupted when the next pandemic arrives. The Clinician Program for Resilience (CPR) is a model that can respond to the challenges facing today's training institutions.