## COVID-19

## Battle Scars and Resilience at the Health Care Frontline

The COVID-19 pandemic has created an historic global crisis, resulting in unprecedented stressors on frontline health care systems. The population remains on edge, and hospitals are stretched to capacity. This is not our first pandemic. We have learned from prior outbreaks that, in addition to the sheer physical burden, there are also likely to be important but often unacknowledged behavioral and psychosocial costs. Frontline health care workers may be particularly vulnerable to harmful psychological consequences.

The challenges have been monumental. Although acute care providers are no stranger to the extremes of human tragedy, the scale and enormity of the COVID-19 crisis has shaken even the most battle hardened among them. Coupled with the onslaught of extraordinary patient volume and acuity playing out on a daily basis in crowded emergency departments, providers have struggled with nearly relentless physical and psychological exhaustion. Heightened risk of infection, rampant illness, and even fatalities within their own ranks have instigated in many frontline providers previously unheard-of fears for their own personal safety.<sup>2</sup> Layered on top of these already formidable stresses are a lurking hopelessness and despair over the ethical struggles that inevitably result when patient survival is weighed against dwindling resources.

Recent data suggest that the most acute phase of the pandemic may be fading or at least leveling off. But determining when the crisis will end, whether it will return, and what the ongoing crush on hospital resources may be is still largely a matter of guess work. What this means for the mental well-being of providers is difficult to know. There are, however, at least two things we can say with some certainty. The news is both good and bad.

First, the good news. Human beings are resilient. We will get through this. It is not uncommon to experience heightened distress in the face of extreme or potentially traumatic events. That response is both

normative and adaptive. Moreover, as an abundant body of research has shown, the majority of people exposed to even the most aversive events are able to weather those events with little or no enduring psychological costs. Frontline providers are no exception. Although the intense stresses and strains of acute care can be highly aversive, most health care workers manage those stresses and strains without enduring harm to their mental and physical health.

Now the bad news. There will be psychological casualties. Even at the highest levels of resilience, there are always some casualties. Early evidence has already shown that frontline health care providers are reporting significant increases in symptoms of depression and anxiety.<sup>2</sup> We fear that many will inevitably endure longer-term psychological consequences, including posttraumatic stress disorder (PTSD), prolonged grief, or major depression. Even in normal times, health care providers in critical care settings experience PTSD at a considerably higher prevalence than in the general adult population but similar to that seen among disaster survivors.<sup>3</sup> All indications suggest that these rates are likely to be even greater for critical care responders in the aftermath of the COVID-19 pandemic. In addition to the enormous toll such psychological costs will extract from the personal lives of providers, they may also compromise treatment and exacerbate the already existing shortage of critical care personnel, especially amongst our health care safety nets, such as emergency departments.

We can improve this situation. Resilience is not static, but rather a matter of flexibility and adaptation.<sup>4</sup> With health care systems already taxed to capacity, substantive changes at present may be difficult if not impossible. But there are lessons to be learned and, given the gravity of the current crisis, opportunity to address at least some of these concerns even now.

Consider, for example, the medical culture of stoicism. Frontline providers are surrounded by human pain and tragedy, yet their own suffering is typically endured in silence. The experience of talking with and receiving support from others is one of the best predictors of resilience we know. In this digital age pandemic, opportunities to share intimate and personal reactions with colleagues have already blossomed. Health care workers have shared tips on COVID-19 management, while also revealing stories of grief and personal tragedy with their peers throughout the crises via informal chat groups or social media platforms. These efforts have arisen spontaneously and organically, but they highlight an obvious need for the development of more formalized peer support networks (either virtual or in person) that could play a key role in the nurturing of resilience among frontline workers.

Beyond the level of the individual provider, it will be crucial to think of resilience in terms of larger, system-level factors. The term "moral injury" has gained increasing currency among providers as they describe their emotional struggle to reconcile the obligation to provide the best patient care in the face of profound system-level limitations and challenges. This was felt acutely by frontline staff during the crush of the current pandemic, where shortages in essential protective gear, beds, and equipment (e.g., ventilators, oxygen tanks) led to unimaginable despair in emergency departments across the city. Any efforts to foster resilience in providers must occur in concert with a deep, introspective analysis at the health system level to identify factors that can enhance flexibility in resource management during times of crisis.

We are still in midst of the storm of COVID-19, yet already, there are concerning warning signs portending a dramatic mental health fallout among frontline providers. Strategies to support and nurture the resilience of these brave women and men will be essential, as

their continued physical and mental health is critical in our efforts for this current pandemic, but also to ensure their readiness for the likely future crises to come.

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