



The Invisible Wounds of COVID-19: The Mental Health Crisis in Health Care Workers

PANDEMIC BRINGS NEW RISKS AND FEARS

By Craig Pearson, PhD, and Jessica A. Gold, MD, MS

Since the start of the coronavirus pandemic, the mental health of health care workers has been at risk. Many found themselves facing novel threats to their personal safety and the safety of those around them—threats that were often drastically different from those they had previously faced in their daily lives and work.

This mounting awareness of danger early in the pandemic was compounded in many cases by medical workers' lack of access to personal protective equipment (PPE).¹ On top of this, as the virus spread across the world, the nature of the day-to-day work on the ground changed almost overnight. In addition to the regular job stressors, health care workers were dealing with higher than normal reported rates of patient deaths, pervasive fear of the unknown, disagreement regarding best treatment practices, the absence of patients' families on the units, and fears of needing to ration or allocate resources like ventilators or medications, that in many cases did not materialize.²

These challenges arrived against a backdrop of physician wellness that was already compromised. Medical students and residents have rates of depression much higher than the general population,^{3,4,5} and physician suicide is among the highest of any profession.⁶ Physicians also have high rates of burnout across the spectrum, up to 50% in many studies, which has been shown to affect

productivity, patient care, and, of course, personal mental health.⁷ One study estimated that the annual productivity lost due to physician burnout is equivalent to the loss of seven medical school graduating cohorts.⁸ Despite this, many physicians do not receive mental health care or ask for help when they need it. In many cases, they avoid it.^{9,10}

CURRENT STRESSORS

As the pandemic has evolved, so have the stressors. The impact of the novel coronavirus has affected different regions in different ways—whether because of differing caseloads or the financial impact of COVID-19 on medical practices. Hospitals readied themselves to look like Wuhan or Northern Italy or New York City, reassigning staff to perform urgently needed tasks and procedures which, in some cases, they had not practiced in years,^{11,12} and preparing wards for an expected surge of COVID-19 patients. But the expected crises did not manifest everywhere in the same ways. Cities locked down, unemployment rose, and patient appointments were cancelled, postponed, or made virtual. Medical research not directly related to the new coronavirus was almost universally stalled. This meant that even in regions with large COVID-19 patient volumes, hospitals were taking substantial financial hits and some employees were forced to take pay cuts.

Now, as cities reopen, patients fear

returning to medical institutions for routine or acute care,¹³ and it is becoming clear that medicine will be struggling for a long time and some hospitals and clinics might not survive.^{14,15} Many will suffer financial and administrative burdens for years to come. Thus, while not every frontline worker's mental health is directly affected by seeing the day-to-day care of COVID-19 patients who are dying at high rates, the risk of developing long-term mental health effects is still high, due to this broad spectrum of stressors.

Even if the worst case does not arise, the fear and anticipation of subsequent surges in COVID-19 cases will profoundly affect the mental health of frontline workers in the coming months and years. For instance, resources in regions with high caseloads, such as New York, were strained to the breaking point at the local peak of the pandemic, whereas elsewhere, like much of the Midwest, hospitals have largely managed to keep up with lower rates of community spread.¹⁶ For workers in these lower caseload areas, this creates a sense of anticipatory anxiety: Are we out of the woods yet? When will a fresh wave hit us? Will it ever come?

The uncertainty of the virus' spread among these populations, combined with alarming, often traumatic images shared by friends and peers on the harder-hit coasts, or throughout social media, can contribute to a sense of constant threat that impairs health care workers' ability

While not every frontline worker's mental health is directly affected by seeing the day-to-day care of COVID-19 patients who are dying at high rates, the risk of developing long-term mental health effects is still high.



Stock Photo/Getty Images

to maintain focus and preserve their mental well-being. And, for the harder-hit regions that are now rebounding, the fear of a second or third COVID-19 surge contributes to unresolved anxiety. Until we have a more confident plan or treatment or vaccine, it is reasonable to expect that health care worker mental health will be at persistent, increased risk. Anxiety, after all, stems from uncertainty.

ADDITIONAL ISSUES

The coronavirus pandemic is not the only ongoing threat to mental health. We are currently in the midst of national political upheaval and civil unrest.¹⁷ While there is concern the widespread protests could lead to additional coronavirus cases, frontline workers must continue to work in the hospitals while doing their best to process the grief that many feel over the sociopolitical climate and, in some cases, a conflict between the wish to protest and the feeling of obligation to maintain recommended physical distancing practices. This also has potential to jeopardize the well-being of physicians, particularly black physicians, who are already taking care of COVID-19 patients who disproportionately look like them.¹⁸

While we do not have data about mental well-being in physicians by race, the existence of systemic racism

is readily observable, along with the fact that underrepresented minorities disproportionately work lower wage jobs, are less likely to have good workplace benefits, and are more likely to be in direct contact with COVID-19.¹⁹ High risk of infection is known to yield mental health effects in pandemics, and so this is overall an especially high-risk group that needs to be monitored.²⁰

It is impossible to predict exactly what the mental health outcomes will be after the pandemic. Preliminary data from China suggests that rates of PTSD, anxiety, and depression will be high.^{21,22,23} If we look at the data from past pandemics, it is also true that depression is possible, along with trauma and workplace avoidance,²⁴ but it is difficult to apply that data to the current moment. We can look to previous studies of imposed quarantine, such as SARS, to infer that those health care workers who do contract COVID-19 and undergo quarantine may be at high risk for depression, substance use and PTSD, even three years after the epidemic.²⁵

Yet, we don't know the impact of self-isolation as it has been adopted in 2020, and the scale of this pandemic is much different from those studied in the past. We do know that there are high risks of negative mental health outcomes among those who directly worked with

COVID-19 patients, those who contracted the illness or knew someone who did. Also at increased risk are women and those with previous psychiatric histories and substance use histories.²⁶ These groups should be regularly screened and closely monitored. Given the scale of the pandemic, it seems likely that we will be observing and dealing with its impact on health care workers' mental health for a long time. And the pandemic isn't even close to over.

ACTION STEPS

So, what can be done? Medical institutions have an obligation to support their staff's mental health for the long term and not just implement short term policies. Given the timeline of treatment and vaccine development, it is clear that this is not something that will go away soon. We need to figure out which measures that were put in place temporarily should stay around—hotlines, extra appointments, group therapy, crisis support—and which need to be altered. Not all policies have to be mental health related to help mental health. Institutions can safeguard their workers' physical health with PPE and workplace safety policies, or their sick leave or child care policies.

At the very least, we need to work to change the culture of medicine, to make it

Given the scale of the pandemic, it seems likely that we will be observing and dealing with its impact on health care workers' mental health for a long time. And the pandemic isn't even close to over.

one in which vulnerability and emotions are discussed, not hidden. Getting help should be safe and encouraged. We should not be asking on credentialing, licensing, or insurance forms for mental health histories, which only serve to discourage treatment seeking.²⁷ As a community in health care, it is up to us to finally approach these problems the way we approach the illnesses we treat in our patients—that is, with more than a bandage. A mental health crisis is looming for frontline workers, and we can't keep hiding behind patient care and stoicism for long. For many, the effects are already here.

Jessica ("Jessi") Gold, MD, MS, is an assistant professor in the Department of Psychiatry at Washington University School of Medicine in St. Louis, where she teaches in the medical school and psychiatry residency program and sees patients in her outpatient psychiatry clinic who are transitional aged or are faculty or staff of the university or hospital system. She is a prolific lecturer and author for professional journals. She also has contributed articles to popular media including *The New York Times*, *TIME*, and *Self*, as well as physician media such as *Psychiatry Times*, *MedPage* and others. She authored the April 3 article on *StatNews*, "The Covid-19 Crisis too Few Are Talking About: Health Care

Workers' Mental Health." Her writings are available on her website, www.drjessigold.com. She can be followed on Twitter, @drjessigold. She can be reached at jgold@wustl.edu.

Craig Pearson, PhD, is a student at Washington University School of Medicine. He holds his PhD in clinical neuroscience from Cambridge University. He has done extensive work in the field of narrative medicine, including writing, podcasting, and documentary film, all of which are accessible on his website, www.craigspearson.com. He can be followed on Twitter, @CraigSPearson. He can be reached at craigspearson@wustl.edu.

REFERENCES

1. Artenstein, Andrew W. "In pursuit of PPE." *New England Journal of Medicine* 382.18 (2020): e46.
2. Emanuel, Ezekiel J., et al. "Fair allocation of scarce medical resources in the time of Covid-19." *NEJM* (2020): 2049-2055.
3. Rotenstein, Lisa S., et al. "Prevalence of depression, depressive symptoms, and suicidal ideation among medical students: a systematic review and meta-analysis." *JAMA* 316.21 (2016): 2214-2236.
4. Mata, Douglas A., et al. "Prevalence of depression and depressive symptoms among resident physicians: a systematic review and meta-analysis." *JAMA* 314.22 (2015): 2373-2383.
5. Frank, Erica, and Arden D. Dingle. "Self-reported depression and suicide attempts among US women physicians." *American Journal of Psychiatry* 156.12 (1999): 1887-1894.
6. Schernhammer, Eva S., and Graham A. Colditz. "Suicide rates among physicians: a quantitative and gender assessment (meta-analysis)." *American Journal of Psychiatry* 161.12 (2004): 2295-2302.
7. West, Colin P., Liselotte N. Dyrbye, and Tait D. Shanafelt. "Physician burnout: contributors, consequences and solutions." *Journal of Internal Medicine* 283.6 (2018): 516-529.
8. Shanafelt TD, Dyrbye LN, West CP, Sinsky CA. Potential impact of burnout on the US physician workforce. *Mayo Clin Proc* 2016; 91: 1667–8.
9. Gold, Katherine J., Ananda Sen, and Thomas L. Schwenk. "Details on suicide among US physicians: data from the National Violent Death Reporting System." *General Hospital Psychiatry* 35.1 (2013): 45-49.
10. Givens, J., and J. Tija. "Depressed Medical Students' Use of Mental Health Services and Barriers to Use." *Academic Medicine* September 77 (2002): 9.
11. <https://www.modernhealthcare.com/hospitals/hospitals-redeploy-specialists-covid-19-front-lines>
12. https://www.stltoday.com/business/local/health-systems-reassign-employees-prepare-former-nurses-to-return-to-the-field-during-covid-19/article_6c791de4-8eaa-50c8-8bf8-5a25156829c4.html
13. <https://www.advisory.com/research/health-care-advisory-board/blogs/at-the-helm/2020/05/provider-organizations-covid-19>
14. Khullar, Dhruv, Amelia M. Bond, and William L. Schpero. "COVID-19 and the Financial Health of US Hospitals." *JAMA* 323.21 (2020): 2127-2128.
15. Barnett, Michael L., Ateev Mehrotra, and Bruce E. Landon. "Covid-19 and the Upcoming Financial Crisis in Health Care." *NEJM Catalyst Innovations in Care Delivery* 1.2 (2020).
16. <https://www.cdc.gov/nhsn/covid19/report-patient-impact.html>
17. <https://www.journalofhospitalmedicine.com/jhosmed/article/223342/hospital-medicine/when-grief-and-crises-intersect-perspectives-black>
18. Price-Haywood, Eboni G., et al. "Hospitalization and mortality among black patients and white patients with Covid-19." *New England Journal of Medicine* (2020).
19. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html>
20. Kisely, Steve, et al. "Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis." *BMJ* 369 (2020).
21. Pappa, Sofia, et al. "Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis." *Brain, Behavior, and Immunity* (2020).
22. Lai, Jianbo, et al. "Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019." *JAMA Network Open* 3.3 (2020): e203976-e203976.
23. Rajkumar, Ravi Philip. "COVID-19 and mental health: A review of the existing literature." *Asian Journal of Psychiatry* (2020): 102066.
24. Maunder, Robert G., et al. "Long-term psychological and occupational effects of providing hospital healthcare during SARS outbreak." *Emerging Infectious Diseases* 12.12 (2006): 1924.
25. Brooks, Samantha K., et al. "The psychological impact of quarantine and how to reduce it: rapid review of the evidence." *The Lancet* (2020).
26. Kisely, Steve, et al. "Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis." *BMJ* 369 (2020).
27. Shanafelt, Tait D., et al. "Special report: suicidal ideation among American surgeons." *Archives of Surgery* 146.1 (2011): 54-62.