

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



## Psychological Distress Persists Among COVID-19 Health Care Providers, Suggesting New Challenges and Missed Opportunities for Support

Ashley Eaton England, BS Mount Pleasant, MI Jared A. Greenberg, MD Chicago, IL

Many health care providers work in high-stress and psychologically demanding environments, which can lead to psychological distress and burnout. The additional challenges placed on health care systems by the COVID-19 pandemic resulted in a high proportion of health care providers and first responders with symptoms of psychological disorders. It has become clear that provider safety and wellbeing is necessary to sustain public health during mass-casualty events.

Azoulay and colleagues<sup>3</sup> previously found that psychological symptoms were common among ICU providers in France during the first wave of the COVID-19 pandemic. In a follow-up study published in this issue of *CHEST*, the authors reported consistently high levels of psychological symptoms among providers during the second wave of the pandemic.<sup>4</sup> Symptoms were so common that they may be considered a normative

FOR RELATED ARTICLE, SEE PAGE 944

**AFFILIATIONS:** From the Department of Psychology (A. Eaton England), Central Michigan University; and the Department of Pulmonary and Critical Care Medicine (J. A. Greenberg), Rush University Medical Center, Chicago, IL.

FINANCIAL/NONFINANCIAL DISCLOSURES: None declared. CORRESPONDENCE TO: Jared A. Greenberg MD; email: Jared\_greenberg@rush.edu

Copyright © 2021 American College of Chest Physicians. Published by Elsevier Inc. All rights reserved.

**DOI:** https://doi.org/10.1016/j.chest.2021.06.007

experience. Among 845 respondents, 60% exhibited symptoms of anxiety, 36% exhibited symptoms of depression, and 28% exhibited symptoms of posttraumatic stress disorder. Fears around infection and ability to rest were significant predictors of these symptoms.

There are some notable differences between the authors' first and second studies. In this second study, the authors investigated burnout as an outcome; they found that 45% of participants had symptoms of severe burnout. In addition, in the current study, the authors investigated new predictors of outcomes, including personality traits of participants and characteristics of their experience during the first wave of the pandemic. Some personality traits and professional roles increased the risk of distress and burnout, which is consistent with findings of other investigators.<sup>2,5</sup>

This study has several strengths. First, the authors quickly recruited a large sample of participants with a variety of professional roles across multiple ICUs; the survey completion rate was high (70%). Additionally, participants cared for a large number of patients with COVID-19, and findings provide relevant insights into their experiences at the height of the pandemic. This study also has some limitations. All respondents were located in French ICUs during the second wave of the COVID-19 pandemic, which may limit generalizability to other countries or time periods. Additionally, the anonymity of the survey prevented the authors from linking respondent data across time periods. This information would have helped understand trajectories of provider distress and the characteristics of providers that were risk factors for the development of new symptoms. The authors also used a simple, binary measure of personality, which limited the information gained. Other scales exist that may offer a quick, valid, and more comprehensive personality screen.<sup>6</sup> Finally, some of the associations between predictors and outcomes were quite small, making it difficult to meaningfully predict who would need more resources based solely on provider characteristics. Soliciting feedback from health care providers about their experiences and needs may be one way to further understand which factors lead to burnout.7

The main message of this study by Azoulay and colleagues is similar to that of others dealing with the

chestjournal.org 797

mental wellbeing of health care providers during the COVID-19 pandemic: the high prevalence of symptoms underscores the need for health care systems to better support the safety and mental health of their frontline medical providers. Health care systems likely need to take a multifaceted approach that is flexible enough to adjust to the diverse and sometimes unpredictable needs of their communities. The fact that a high percentage of participants continued to have psychological symptoms over the course of the authors' two studies may suggest a missed opportunity on the part of the study sites to respond to the needs of their providers, such as increased personal protective equipment, personnel, and resources to deal with the stressors of working under such demanding circumstances.

Stigma often exacerbates psychological distress and deters help-seeking. Studies such as the one by Azoulay and colleagues may reduce stigma by demonstrating the high prevalence of psychological symptoms and burnout, some of which may be expected responses to unanticipated and world-changing events. These concerns are not subjective interpretations but rather the realities of pandemics and mass casualty events that hospitals should anticipate and prepare for. The findings of Azoulay and colleagues suggest that hospital systems should be prepared with adequate reserve staffing to allow for rest, and protective equipment and hospital architecture to foster a sense of cleanliness and safety.

A primary focus for the future should be determining how health care systems can help individual staff members recognize whether their symptoms reflect a mental health issue as well as facilitating accessibility to appropriate resources. Rush University Medical Center in Chicago, Illinois, has provided a framework for supporting the mental health needs of staff members <sup>10</sup>; the approach involves establishing a culture of wellness, making multiple types of resources accessible to staff, and maintaining the necessary infrastructure to measure the impact of the support interventions. Given that the success of an intervention may be related to the participant's belief that the intervention could be

successful,<sup>9</sup> it is essential to provide staff with a variety of resources from which to choose. In addition, further study is needed to provide an evidence base for specific mental health interventions tailored to the needs of health care providers. It is hoped that lessons learned during the COVID-19 pandemic will provide the impetus for health care systems to focus more attention on ways to support the wellbeing of their community.

## Acknowledgments

Other contributions: James Gerhart, PhD, provided feedback for this editorial.

## References

- West CP, Dyrbye LN, Erwin PJ, Shanafelt TD. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *Lancet*. 2016;388(10057):2272-2281.
- Luo M, Guo L, Yu M, Jiang W, Wang H. The psychological and mental impact of coronavirus disease 2019 (COVID-19) on medical staff and general public: a systematic review and meta-analysis. *Psychiatry Res.* 2020;291:113190.
- 3. Azoulay E, Cariou A, Bruneel F, et al. Symptoms of anxiety, depression, and peritraumatic dissociation in critical care clinicians managing patients with COVID-19: a cross-sectional study. *Am J Respir Crit Care Med.* 2020;202(10):1388-1398.
- Azoulay E, Pochard F, Reignier J, et al. Symptoms of mental health disorders in critical care physicians facing the second COVID-19 wave: a cross-sectional study. *Chest.* 2021;160(3):944-955.
- Braquehais MD, Vargas-Caceres S, Gomez-Duran E, et al. The impact of the COVID-19 pandemic on the mental health of healthcare professionals [Published online ahead of print June 20, 2020]. QJM. 2020. https://doi.org/10.1093/qjmed/hcaa207.
- Rammstedt B, John OP. Measuring personality in one minute or less: a 10-item short version of the Big Five Inventory in English and German. J Res Personality. 2007;41(1):203-212.
- Cubitt LJ, Im YR, Scott CJ, Jeynes LC, Molyneux PD. Beyond PPE: a mixed qualitative-quantitative study capturing the wider issues affecting doctors' well-being during the COVID-19 pandemic. BMJ Open. 2021;11(3):e050223.
- 8. Chen Q, Liang M, Li Y, et al. Mental health care for medical staff in China during the COVID-19 outbreak. *Lancet Psychiatry*. 2020;7(4): e15-e16.
- Pollock A, Campbell P, Cheyne J, et al. Interventions to support the resilience and mental health of frontline health and social care professionals during and after a disease outbreak, epidemic or pandemic: a mixed methods systematic review. *Cochrane Database Syst Rev.* 2020;11:CD013779.
- Adibe B, Hebert C, Perticone K, Dowd SM. Creating wellness in a pandemic: a practical framework for health systems responding to COVID-19. Nejm Catalyst Innovations in Care Delivery. 2021;2(2).