JAMA Network Open

Invited Commentary | Psychiatry

Exercising Heart and Head in Managing Coronavirus Disease 2019 in Wuhan

Roy H. Perlis, MD, MSc

+ Related article

Author affiliations and article information are listed at the end of this article.

Across the world, Dr Li Wenliang, MMed, has become the face of the coronavirus disease 2019 (COVID-19) epidemic in China. The ophthalmologist, who tried to alert his colleagues to this novel coronavirus and subsequently became an early victim of the disease, was among many thousands of health care workers who continue to struggle with limited resources to treat patients with COVID-19 while staving off an even larger pandemic. Lai et al[1] describe another ongoing struggle at the COVID-19 epicenter, namely its consequences on the mental health of clinicians and other health care workers.

Surveying more than 1200 nurses and physicians in 34 hospitals in the Wuhan region and across mainland China, the authors found striking prevalence rates of symptoms of depression and anxiety; half of those responding identified at least mild depression on a validated screening instrument, and one-third reported insomnia. Approximately 14% of physicians and nearly 16% of nurses described moderate or severe depressive symptoms. Those at greatest risk for depressive and anxious symptoms included women, those with intermediate seniority titles (compared with those with junior roles), and those at the center of the epidemic in Wuhan. These findings, consistent with those observed in the 2003 severe acute respiratory system (SARS) epidemic,[2] may help to guide strategies for responding to mental health sequelae of this and future epidemics.

Unsurprisingly for a report that completed data-gathering in 6 days and analysis in 4 weeks, Lai et al[1] cannot answer important questions. What were the preexisting rates of psychopathology in this cohort? Are the consequences specific to being a health care worker or to simply living in the midst of an outbreak and potentially being subject to quarantine? As Camus wrote, "This sense of being abandoned, which might in time have given characters a finer temper, began, however, by sapping them to the point of futility."[3] Perhaps most importantly, to what extent will these symptoms persist or worsen over time?

While the peak of the COVID-19 epidemic remains to be seen, it will ultimately subside. The work of Lai et al[1] provides a reminder of the toll that will likely linger: the consequences of chronic stress, including major depression and anxiety disorders. In a 3-year follow-up of a 2003 SARS outbreak,[4] 23% of health care workers reported moderate or greater depressive symptoms. This COVID-19 survey itself represents part of a massive effort by the Chinese government to contain disease fallout and address mental health. Nevertheless, just as the world has joined efforts to manage COVID-19 infection, it will be critical not to neglect the mental health consequences of the fight against the epidemic.

Across the world, physicians, nurses, and other frontline health care workers do heroic and lifesaving work in stressful settings on a daily basis. However, the toll that providing such care takes must also be recognized: sooner or later, every clinician is also a patient. Even outside epidemics, wars, and other public health crises, health care workers face mounting stresses, exacerbated by structural changes in medicine but ultimately reflecting the nature of the work itself.[5] Such stresses far exceed the popular but imprecise concept of burnout.[6] William Osler called the practice of medicine "a calling, not a business; a calling in which your heart will be exercised equally with your head." Whether heart or head, Lai et al[1] provide a reminder that such a calling is not without cost.

ARTICLE INFORMATION

Published: March 23, 2020. doi:10.1001/jamanetworkopen.2020.4006

Corresponding Author: Roy H. Perlis, MD, MSc, Center for Quantitative Health and Department of Psychiatry, Massachusetts General Hospital, Simches Research Bldg, 185 Cambridge St, Second Floor, Boston, MA 02114 (rperlis@mgh.harvard.edu).

Author Affiliations: Center for Quantitative Health and Department of Psychiatry, Massachusetts General Hospital, Boston (Perlis); Associate Editor, *JAMA Network Open* (Perlis).

Conflict of Interest Disclosures: Dr Perlis reported having biotech investments in Outermost Therapeutics, Psy Therapeutics, Burrage Capital, and RID Ventures and receiving personal fees from Genomind and Tekada Pharmaceutical Company outside the submitted work.

REFERENCES

1. Lai J, Ma S, Wang Y, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Netw Open*. 2020;3(3):e203976. doi:10.1001/jamanetworkopen.2020.3976

2. Wong TW, Yau JK, Chan CL, et al. The psychological impact of severe acute respiratory syndrome outbreak on healthcare workers in emergency departments and how they cope. *Eur J Emerg Med*. 2005;12(1):13-18. doi:10.1097/00063110-200502000-00005

3. Camus A. *The Plague*. Random House; 2012.

4. Liu X, Kakade M, Fuller CJ, et al. Depression after exposure to stressful events: lessons learned from the SARS epidemic. *Compr Psychiatry*. 2012;53(1):15-23. doi:10.1016/j.comppsych.2011.02.003

5. Thomas LR, Ripp JA, West CP. Charter on physician well-being. *JAMA*. 2018;319(15):1541-1542. doi:10.1001/jama.2018.1331

6. Oquendo MA, Bernstein CA, Mayer LES. A key differential diagnosis for physicians—major depression or burnout? *JAMA Psychiatry*. 2019;76(11):1111-1112. doi:10.1001/jamapsychiatry.2019.1332