

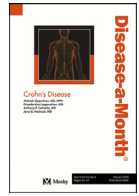


Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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.

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

## Disease-a-Month

journal homepage: [www.elsevier.com/locate/disamonth](http://www.elsevier.com/locate/disamonth)

# COVID-19 mental health considerations for health care workers and Patients: A brief overview



R.B. McFee, DO, MPH. FACPM, FAACT

## Introduction

It is clear that our patients are experiencing a variety of mental health problems – new or worsened because of COVID-19. It is unrealistic to expect health care professionals (HCP) to be immune to this.<sup>1–6</sup> Not surprisingly declining mental health across medical and healthcare professions are being reported as the COVID-19 pandemic progresses.<sup>1–6</sup> This is not unexpected.

As a result, no edition on COVID-19 would be complete without a brief discussion on the mental health implications for health care workers involved in the delivery of care during this global pandemic. So while this section of the Disease A Month COVID-19 issue will provide some insights and resources we hope will be useful, they are not exhaustive; new research is ongoing and updated data are emerging.

## Discussion

It is well known that health care professionals are not immune to the mental health effects of traumatic events.<sup>7–10</sup> But the psychological impact associated with delivering health care is not relegated to discrete traumatic events such as terrorism or similar.

And unlike discrete but traumatic events, such as 9/11<sup>7, 9</sup> pandemics of this magnitude are uncommon in the experience of United States, and even internationally, where outbreaks of infectious diseases, wars, civil strife, and natural disasters are more common.<sup>7–18</sup> Moreover, while disasters and outbreaks share some commonalities in their ability to cause mental health adverse effects, COVID-19 poses some additional challenges that continue to be studied – from a medical and mental health perspective.

Pandemics – especially sustained outbreaks such as SARS, Ebola, and now COVID-19 pose unique challenges to patients, health care professionals (HCP) and health care workers (HCW) – from prehospital emergency responders, emergency department personnel, department chairs, physicians, advanced practice and nursing staff, to support teams and housekeeping; anyone involved in the continuum of health care is, and feels vulnerable.<sup>1–3</sup> And not without reason.

<https://doi.org/10.1016/j.disamonth.2020.101061>

0011-5029/© 2020 Elsevier Inc. All rights reserved.

In China, reports suggest ~4% of medical staff became infected.<sup>3</sup> Contributing factors to the magnitude of adverse mental health impact on HCW include the level of suffering that often seemed endless during the surge, and remains as a background concern during these times. Resource depletion of personal protective equipment, further placing responders and health care professionals in jeopardy, and the reality many of our colleagues and friends have become ill, some seriously, and even died, is a constant awareness.<sup>1-3</sup>

Then there is the omnipresent sense of the unknown – asymptomatic patients posing a contagion risk, persistent knowledge gaps, lack of vaccines, and the unpredictability of the duration of COVID-19.

Long hours, inadequate staffing, also contribute. Tasking HCP and HCW with roles unfamiliar or more challenging than routine responsibilities adds to stress. The surges of patients in overwhelming, and seemingly endless numbers, the omnipresent threat of bringing illnesses home to our families, the stark emptiness of cities and social isolation society faces, which includes HCP, the vast number of critically ill patients, and the uncertainty associated with this virus against a continually vulnerable society, creates a perfect storm for adverse mental impact on us, and our colleagues.

A recent study revealed 12.5% of hospital staff experienced anxiety, and another study demonstrated 44.6% of respondents reported anxiety symptoms during COVID-19.<sup>3</sup>

In the aftermath of 911 and earlier pandemics, increased attention was given to the mental health needs of emergency workers, and health care responders.<sup>7,9</sup> Post traumatic stress disorder (PTSD), enhanced sense of threat, and other long term mental health impact is not unexpected. Anxiety, depression are also associated with these events (1-3.). Altered mood, disorders in cognitive behavior and other adverse effects have been reported.<sup>1-3</sup>

Interestingly there are protective factors – good preparedness and crisis training before pandemics and traumatic events, strong social support from family and coworkers, strong belief and faith practices, cultural and developed coping mechanisms – leadership experience – all of these have contributed to and enabled some HCP to emerge with some positive mental health effects that include an enhanced ability to respond to stressors, strengthening of emotional and psychological approach to trauma.<sup>1,19,20</sup>

Various approaches evolved, including disaster mental health paradigms, and the provision of psychological services in near live time at various traumatic events – earthquakes and other natural disasters, mass casualty events, including school shootings, and other incidents that are related to psychological trauma were developed.<sup>21-24</sup>

## Resources to consider

Although research is ongoing and best practices in terms of addressing the mental health needs of HCP, HCW, as well as our patients continue to be evaluated, there are some programs and suggestions that may help. First and foremost – do not delay in seeking psychological care services if you are experiencing increased irritability, sleeplessness, social avoidance or increased distancing from friends, family, or familiar activities, symptoms of depression, or anxiety, changes in cognitive ability, and similar effects.

The National Center for PTSD is adapting trauma informed care to address the needs of HCP and HCW during COVID-19. This includes support services.<sup>21-24</sup> Brief training and cognitive interventions, along with guided mindfulness has shown promise. There are also online platforms which can serve as adjunctive aids to more personalized behavioral treatment.<sup>23-25</sup>

The Disaster Distress Hotline **1.800.985.5990** is a 24 hour a day, 7 day a week resource staffed by specially trained counselors and a valuable resource for patients and health care providers. To verify the utility of this service the author phoned this number (06/28/20), and was directed to a counselor in less than 2 min. Located in multiple sites, and part of the Suicide Prevention Hotline service, this service has frontline and supervisory level assistance that also can refer to additional resources as well as provide essential intervention.

The American Psychological Association has several programs and ongoing research that can provide greater insights into the mental health challenges associated with COVID-19.<sup>26, 27</sup>

If a health care provider or patient needs local assistance, but is in psychological crisis, another valuable resource is **1.800.273.8255** (also known as **1.800.273.TALK**) and a **TTY 1.800.799.4889**, is the National Suicide Prevention Lifeline. In addition to trained staff, this number directs people regional/local centers, which can also refer to local mental health resources.<sup>29</sup>

Another valuable source of trained mental health professionals that also provides a list of resources is Substance Abuse and Mental Health Services Administration (SAMHSA).<sup>28,29</sup> They provide the following: **1-800-662-HELP which is 1.800.662.4357. Also available is TTY: 1-800-487-4889, and online [www.samhsa.gov/find-help/national-helpline](http://www.samhsa.gov/find-help/national-helpline).**

These are referred to as their "Treatment Referral Routing Service," the Helpline (**1.800.662.HELP**, or **1.800.662.4357** or **TTY 1.800.487.4889**. SAMHSA states these numbers provide 24-hour free and confidential treatment referral and information about mental and/or substance use disorders, prevention, and recovery in English and Spanish.<sup>29</sup>

Health care facility leaders, and department chairs play a critical role in mitigating some of the risk, as well as responsibility to promote mental health care as essential services for the wellbeing of HCP and HCW. There remains a need to destigmatize the use of psychological services. In fact seeking out psychological care should be encouraged. To be sure every aspect of medical delivery is overtaxed during COVID-19. That notwithstanding, if we are going to keep our HCP and HCW healthy (mentally and physically), especially front line providers such as emergency providers, professionals who are increasingly experiencing the negative mental health effects of this pandemic, increased access to psychological services is essential, and regular use of these should be encouraged.<sup>1,2</sup>

## References

1. Wong A.H., Pacella-LaBarbara M.L., Ray J.M., Ranney M.L., et al. Healing the healer: protecting emergency health care workers' mental health during COVID-19. *Annals of Emerg Med* 2020 Physicians. <https://doi.org/10.1016/j.annemergmed.2020.04.041> A <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7196406/pdf/main.pdf> last accessed 06/25/20
2. Greenberg N. Mental health of health care workers in the COVID-19 era. *Nat Rev Nephrol*. <https://doi.org/10.1038/s41581-020-0314-5>
3. Liu C.Y., Yang U.Z., Zhang X.M., Xu X., et al. The prevalence and influencing factors in anxiety in medical workers fighting COVID-19 in China: a cross sectional survey. *Epidemiol Infect*2020 (148), e98: 1-7. <https://doi.org/10.1017/S0950268820001107>
4. 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.
5. Smith SA. Mindfulness-based stress reduction: an intervention to enhance the effectiveness of nurses' coping with work-related stress. *Int J Nurs Knowl*. 2014;25:119-130.
6. Wu Z, McGoogan JM. Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: summary of a report of 72314 cases from the Chinese Center for Disease Control and Prevention. *JAMA*. 2020.
7. Neria Y, DiGrande L, Adams BG. Posttraumatic stress disorder following the September 11, 2001, terrorist attacks: a review of the literature among highly exposed populations. *Am Psychol*. 2011;66:429-446.
8. Fischer KR, Bakes KM, Corbin TJ, et al.Trauma-informed care for violently injured patients in the emergency department. *Ann Emerg Med*. 2019;73:193-202.
9. Biggs QM, Fullerton CS, Reeves JJ, et al.Acute stress disorder, depression, and tobacco use in disaster workers following 9/11. *Am J Orthopsychiatry*. 2010;80:586-592.
10. Armagan E, Engindeniz Z, Devay AO, et al.Frequency of post-traumatic stress disorder among relief force workers after the tsunami in Asia: do rescuers become victims? *Prehosp Disaster Med*. 2006;21:168-172.
11. Lancee WJ, Maunder RG, Goldbloom DS. Coauthors for the Impact of SARS Study. Prevalence of psychiatric disorders among Toronto hospital workers one to two years after the SARS outbreak. *Psychiatr Serv*. 2008;59:91-95.
12. Bai Y, Lin CC, Lin CY, et al.Survey of stress reactions among health care workers involved with the SARS outbreak. *Psychiatr Serv*. 2004;55:1055-1057.
13. Kamara S, et al.Mental health care during the Ebola virus disease outbreak in Sierra Leone. *Bull World Health Organ*. 2017;95:842-847.
14. McAlonan GM, et al.Immediate and sustained psychological impact of an emerging infectious disease outbreak on health care workers. *Can J Psychiatry: Revue canadienne de psychiatrie*. 2007;52:241-247.
15. Li L, et al.Mental distress among Liberian medical staff working at the China Ebola Treatment Unit: a cross sectional study. *Health Qual Life Outcomes*. 2015;13:156.
16. Wu P, et al.The psychological impact of the SARS epidemic on hospital employees in China: exposure, risk perception, and altruistic acceptance of risk. *Can J Psychiatry: Revue canadienne de psychiatrie*. 2009;54:302-311.

17. Lin CY, et al. The psychological effect of severe acute respiratory syndrome on emergency department staff. *Emerg Med J EMJ*. 2007;24:12–17.
18. Koh D, et al. Risk perception and impact of Severe Acute Respiratory Syndrome (SARS) on work and personal lives of healthcare workers in Singapore: what can we learn? *Med Care*. 2005;43:676–682.
19. Brooks S, Amlot R, Rubin GJ, et al. Psychological resilience and posttraumatic growth in disaster-exposed organisations: overview of the literature. *BMJ Mil Health*. 2020;166:52–56.
20. Brooks SK, Dunn R, Amlot R, et al. Social and occupational factors associated with psychological wellbeing among occupational groups affected by disaster: a systematic review. *J Ment Health*. 2017;26:373–384.
21. Fullerton CS, Ursano RJ, Wang L. Acute stress disorder, posttraumatic stress disorder, and depression in disaster or rescue workers. *Am J Psychiatry*. 2004;161:1370–1376.
22. Joyce S, Shand F, Lal TJ, et al. Resilience@Work mindfulness program: results from a cluster randomized controlled trial with first responders. *J Med Internet Res*. 2019;21:e12894.
23. PTSD Coach <https://mobile.va.gov/app/ptsd.coach>
24. Kuhn E, Greene C, Hoffman J, et al. Preliminary evaluation of PTSD Coach, a smartphone app for post-traumatic stress symptoms. *Mil Med*. 2014;179:12–18.
25. Ruzek JI, Kuhn E, Jaworski BK, et al. Mobile mental health interventions following war and disaster. *Mhealth*. 2016;2:37.
26. American Psychological Association <https://www.apa.org/practice/programs/dmhi/research-information/pandemics> Last accessed 06/28/29
27. American Psychological Association and COVID-19 Related research <https://www.apa.org/news/apa/2020/03/covid-19-research-findings> Last accessed 06/28/29
28. Substance Abuse and Mental Health Services Administration (SAMHSA) <https://www.samhsa.gov/node/728047> Last accessed 06/28/29
29. Substance Abuse and Mental Health Services Administration (SAMHSA) treatment resources and hotlines <https://www.samhsa.gov/find-treatment> Last accessed 06/28/29