

Issue At A Glance:

The COVID-19 Pandemic's Effect on the US Healthcare Workers' Mental Health

The COVID-19 pandemic brought additional stressors to healthcare workers (HCWs) who were already experiencing mental health issues such as burnout, PTSD, and suicide. This brief provides an overview of the pandemic's increased mental health strain on HCWs, the potential for long term effects, and the outlook post-pandemic.

Introduction

With over 600,000 lives claimed and over 30 million total cases in the United States, the COVID-19 pandemic has made its grim stamp on American history.¹ As the pandemic continues, we have slowly grown in awareness of not only the physical manifestations of the virus, but also the mental health toll. As highlighted in our previous issue brief ([May 2020](#)), the pandemic's strain on mental health is of great concern.

For healthcare workers (HCWs), the mental health strain may be of greater concern due to recurring peaks that overload the thinly stretched healthcare system. For example, the shortage of HCWs in California was stretched so much to its limits last winter that Governor Gavin Newsom urged recently retired HCWs to consider returning to ease the workload of the HCWs who were overwhelmed with more patients, more responsibilities, and less time to complete tasks.^{2,3} The nature of this pandemic along with the current structure of the healthcare system have created a living nightmare for many HCWs since March of 2020. This issue brief aims to shed light on the mental health of HCWs before, during and after the COVID-19 pandemic.

Startling Statistics

In a study of 20,947 healthcare workers, it was found that⁴

- 61%** Feared exposure or transmission of the virus
- 43%** Suffered from work overload
- 49%** Suffered from burnout
- 38%** Reported anxiety or depression

Bringing wholeness to individuals and communities, the Institute for Health Policy and Leadership (IHPL) strives to integrate health policy research and education with leadership development. Our goal is to improve the health of our communities by building on our strong heritage of health promotion and disease prevention.

To learn more, visit us at www.IHPL.llu.edu



LOMA LINDA
UNIVERSITY
HEALTH

Mental Health of HCWs Prior to the Pandemic

Prior to the pandemic, many studies noted that the mental health of HCWs had already been declining. For example, HCWs were already more vulnerable to burnout and had higher suicide rates than non-HCWs.^{5,6}

Physicians: Physicians displayed a 44% higher rate of suicide compared to the general population. Additionally, the suicide rates of physicians were higher in the US than anywhere else in the world.⁵ Even when adjusting for various factors, including work hours, studies have shown that the burnout rates in physicians are significantly higher than in other careers.⁷ A survey of 15,000 physicians in 2018 found that over 40% showed evidence for burnout. Even in the subgroup of physicians who were 45-54 years old, the age where gained experiences and the transition into economic stability should yield peace of mind, the highest incidence of burnout was seen at 50%.⁸

Nurses: Nurses were also affected, showing high risk for suicide.⁵ Also, a 2007 study found that 14% of general nurses and 24% of intensive care unit (ICU) nurses had post-traumatic stress disorder (PTSD) compared to 3.4% in American adults.^{9,10} In another study of US nurses, it was found that factors such as adequate staffing and good support from administration were protective in lowering burnout rates and that patients receiving care from adequately staffed nurses showed higher satisfaction rates, indicating an increase in nursing task force performance when supported.¹¹

Other HCWs: Recent conservative estimations suggest that 21,000 Emergency Medical Technicians (EMTs) and paramedics suffer from PTSD in the US.¹² Other studies have also suggested that first responders have a higher prevalence of PTSD compared to the general public.¹³

What We Have Learned from Past Outbreaks

Studies of the SARS and MERS outbreaks found that there was higher post-event morbidity in HCWs compared to non-HCWs. When further studying the SARS outbreak, HCWs had significantly higher symptoms of depression and anxiety compared to non-HCWs one year after the epidemic. Additionally, 30.4% of HCWs who had direct contact with infected patients reported high levels of emotional exhaustion even 1 to 2 years after the outbreak.¹⁴ The COVID-19 pandemic has lasted much longer than the SARS and MERS outbreaks, raising concern for the severity and duration of its mental health effects.



Mental Health of HCWs During the Pandemic

Healthcare Workers in General

Studies early in the pandemic found that, as a whole, HCWs display more intense grief reactions. This may be due to increased encounters with patients dying from COVID-19. The incidence of sleep problems has also significantly increased even when compared to HCWs in China during the same pandemic.⁶

The pandemic has created a population vulnerable to mental health strain with many HCWs stating their most pressing concerns to be exposure to the virus, possibly infecting loved ones, inadequate quality & quantity of personal protective equipment (PPE), increased workload, and the difficult decision of who gets life-support due to limited resources.^{15,16}

Physicians

In a survey by the Association of American Medical Colleges (AAMC), half of the physicians reported anxiety as a result of the pandemic. In 2018, the prevalence of physician burnout was 40%. By December of 2020, the prevalence of burnout had increased to nearly 60%.¹⁷ Even months before this survey, other studies found that over a third of physicians were feeling overworked and highly stressed.⁴ What is concerning is that even with the mental strain of COVID-19, only 13% of physicians sought out any mental health treatment with many reporting that they were not comfortable seeking treatment.¹⁷

Nurses

The pandemic has drastically changed the workload of many nurses with the most direct change being the nurse-to-patient ratio. In California, Governor Newsom allowed for hospitals to work their nurses outside the long-established limits of the nurse-to-patient ratio.³ Because of this, nurses had the added stressors of being in charge of more patients and having less time to work with each patient. Furthermore, the PPE that is required for the intimate work of nurses has created a barrier to communication which further complicates routine tasks.¹⁵ These factors have led to many nurses feeling highly stressed, frustrated, overloaded, burned out, and undervalued. In fact, in a study done before COVID-19's winter peak, nurses ranked 5 out of 20 among other HCWs when it came to average stress scores.⁴

EMTs & Paramedics

In a study consisting of mostly emergency responders (EMTs & paramedics), 56% of responders had at least one mental health disorder. Of the emergency responders, 30% reported risky alcohol use which is a significant leap from the 16.8%-23.5% that was reported in studies prior to the pandemic. For the emergency responders, experts have likened the mental health effects of the pandemic to that of recent disasters such as hurricane Katrina and 9/11.¹⁸

Future Outlook

As the pandemic continues, so will the mental health strain. Studies of past outbreaks have pointed to a discouraging reality that the mental health effects may linger long after a pandemic has ended.¹⁴ Experts anticipate that there will be a mental health pandemic after the COVID-19 pandemic ends.¹⁹

As such, some lawmakers are urgently trying to address HCW's mental health through policy. For example, California's lawmakers have introduced Assembly Bill (AB) 562, which pushes for the establishment of a mental health program to specifically provide services for HCWs who served on the frontlines of the pandemic.²⁰

Policies and efforts to support HCWs during the pandemic not only impacts HCWs in their ability to manage and recover from the pandemic's mental health strain, but also impact the longevity of their service and the quality of their care.²¹ The pandemic's mental health strain on HCWs is a serious issue that public support, evidence-based resources, and effective legislation should help to address in order to improve future outlook.

References

1. <https://www.npr.org/816707182>
2. <https://www.npr.org/2020/12/17/947440055/california-hospitals-face-staff-shortages-as-hospitalizations-soar>
3. <https://www.npr.org/sections/health-shots/2020/12/30/950177471/california-is-overriding-its-limits-on-nurse-workloads-as-covid-19-surges>
4. [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(21\)00159-0/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(21)00159-0/fulltext)
5. <https://pubmed.ncbi.nlm.nih.gov/32757506/>
6. <https://onlinelibrary.wiley.com/doi/10.1002/da.23120>
7. <https://onlinelibrary.wiley.com/doi/10.1111/joim.12752>
8. [https://www.amjmed.com/article/S0002-9343\(19\)30757-0/fulltext](https://www.amjmed.com/article/S0002-9343(19)30757-0/fulltext)
9. <https://pubmed.ncbi.nlm.nih.gov/17185650/>
10. <https://onlinelibrary.wiley.com/doi/10.1002/jts.22454>
11. <https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC2904602/>
12. <https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC6624844/?report=classic>
13. <https://pubmed.ncbi.nlm.nih.gov/21681455/>
14. <https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC7350408/>
15. <https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC7189614/>
16. <https://www.nejm.org/doi/full/10.1056/nejmp2008017>
17. <https://www.aamc.org/news-insights/doctors-forgo-mental-health-care-during-pandemic-over-concerns-about-licensing-stigma>
18. <https://www.sciencedirect.com/science/article/abs/pii/S0022395620310669?via%3Dihub>
19. <https://catalyst.nejm.org/doi/10.1056/CAT.21.0109>
20. https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=20210220AB562
21. <https://www.ama-assn.org/system/files/2020-05/caring-for-health-care-workers-covid-19.pdf>



Did you know?

In addition to those infected by the virus, the pandemic can create “second victims” which are the HCWs who care for those infected. Fear, anxiety, and doubt are all feelings that HCWs may feel daily throughout this pandemic.¹⁹



LOMA LINDA UNIVERSITY
HEALTH

Institute for Health Policy and Leadership

11209 Anderson Street
Loma Linda, CA 92354
Phone: 909-558-7022
Fax: 909-558-5638
www.IHPL.llu.edu

Special guest contributor:
Randy Sihotang, MS2 at LLUSM

Questions?
Please contact the Institute for Health
Policy & Leadership (ihpl@llu.edu).