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**COMMENTARY**

# How Did COVID-19 Affect the Mental Health of Healthcare Workers?

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## Introduction

What started out as an epidemic in December 2019, COVID-19 soon became our new reality when it became a global pandemic. During this time, healthcare workers around the world began experiencing mental illnesses such as depression (77.6%), insomnia (50.4%), and anxiety (60.2%) due to the pandemic [1]. The pressure of saving lives, the demand for aid, and the restless nights began to become overbearing. As humanity started to panic and the world began to slowly shut down, society relied on our healthcare practitioners to save us.

## Essential Workers

Among the medical professionals who were overwhelmed by the COVID-19 pandemic were those

who worked on the front lines such as nurses, doctors, pharmacists, and respiratory therapists. A healthcare provider is a person or entity that provides medical care or treatment for the sick or injured [2]. The community heavily relied on healthcare providers during the pandemic to treat patients infected with SARS-CoV-2 and healthcare facilities offered higher wages as the first step to improve employee retention in healthcare. Frontline healthcare workers had enormous responsibilities beyond patient care, including mass COVID testing for large populations, hosting vaccine clinics, acting as liaisons between patients and their families, and educating the public about SARS-CoV-2 transmission and treatment. These burdens caused healthcare workers to be greatly overworked and led to physical and emotional exhaustion.

## Social and Emotional Impact

Rising mental health challenges were reported by these professionals including: post-traumatic stress, burnout, depression, and anxiety. This was due to their occupational activities during and after the pandemic [3]. Countless reviews have been conducted on healthcare workers' mental health throughout the COVID-19 pandemic. A recent literature review identified 13 studies that reported that 1 out of every 5 health care workers have insomnia [3]. Other researchers identified 20 studies that concluded that healthcare workers generally reported more anxiety, depression, and sleep problems, compared to the general population [3]. Healthcare workers have been at risk of emotional strain and physical exhaustion from the provision of care to the increasing numbers of patients, who rapidly deteriorated [4]. In their work environment, they had a higher chance of being exposed to critical illnesses and fearing the death of their co-workers [4]. Nurses were obligated to work in the frontline and risked being exposed and infected with SARS-CoV-2. Nurses had to cope with not only their physical well-being but also their emotional well-being. A study shows that a total of 34.1% of nurses suffer from emotional exhaustion, and 12.6% suffer from depression [5].

## Workload

While they worked, healthcare workers experienced irregular hours and higher workloads, as they had entered new or unfamiliar clinical roles [6]. The extreme pressures that were experienced by healthcare workers during a pandemic had increased their risk of burnout, which has adverse outcomes, not only for individuals' well-being but also for patient care and the healthcare system [6]. Workloads in the night shifts were significantly higher, compared to rotational and morning shifts [7]. 8 hour shifts compared to 12 hours had lower mental workloads [7]. Nurses caring for patients who contract coronavirus disease have experienced significant traumas in the form of increased workloads, negative patient outcomes, and less social support system access [8]. This leads them to become paranoid about the risk of exposure towards loved ones. Pre-COVID, nurses had to do total care on a patient with a 1:1 ratio. As the

number of nurses gradually decreased, due to the rise of COVID-19, the number of patients outnumbered the number of nurses, resulting in a 1:4 ratio [9]. The increased number of patients per nurse led to job dissatisfaction and position burnouts [10]. Burnout causes health professionals to leave, resulting in shortages that affect the mental health of those left behind. They were more likely to feel fatigued compared to other healthcare workers, and were concerned about exposing family members they lived with to COVID-19.

## Resource Shortages

The lack of full protection of nurses across the health industry has raised ethical questions such as the extent of their duty, scarce resources, and the failure of personal protective equipment [11]. They were faced with deciding which patient to save and which they had to watch suffer. A severe shortage in gloves, medical masks, goggles, and face shields struck fear of the thought of infecting themselves or loved ones. In order to protect themselves and their families many health care workers resigned. This resulted in a significant decline in workers in the healthcare field. Not only was there not enough equipment, now there were not enough essential workers.

## Conclusion

There has been a significant negative effect on the mental health of healthcare personnel as a result of the limited, uncooperative, and life-threatening labor in the confined COVID-19 environment. Working shorter shifts and adjusting them can help improve healthcare workers' cope with crises and ensure worker safety. To prevent mental health issues in the future, workers' trauma and experiences should be kept to a minimum [12].

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## References

1. Şahin, M. K., Aker, S., Şahin, G., & Karabekiroğlu, A. (2020). Prevalence of Depression, Anxiety, Distress and Insomnia and Related Factors in Healthcare Workers During COVID-19 Pandemic in Turkey. *Journal of community health*, 45(6), 1168–1177. <https://doi.org/10.1007/s10900-020-00921-w>.
2. Elizabeth. “What Is a Healthcare Provider?” Verywell Health, Verywell Health, 23 Mar. 2014.
3. Muller AE, Hafstad EV, Himmels JPW, Smedslund G, Flottorp S, Stensland SØ, Stroobants S, Van de Velde S, Vist GE. The mental health impact of the COVID-19 pandemic on healthcare workers, and interventions to help them: A rapid systematic review. *Psychiatry Res*. 2020 Nov; 293:113441. Do i: 10.1016/j.psychres.2020.113441. Epub 2020 Sep 1. PMID: 32898840; PMCID: PMC7462563.
4. Blake, H., Bermingham, F., Johnson, G., & Tabner, A. (2020). Mitigating the Psychological Impact of COVID-19 on Healthcare Workers: A Digital Learning Package. *International journal of environmental research and public health*, 17(9), 2997. <https://doi.org/10.3390/ijerph17092997>.
5. Galanis, P., Vraka, I., Fragkou, D., Bilali, A., & Kaitelidou, D. (2021). Nurses' burnout and associated risk factors during the COVID-19 pandemic: A systematic review and meta-analysis. *Journal of advanced nursing*, 77(8), 3286–3302.
6. Blake H, Bermingham F, Johnson G, Tabner A. Mitigating the Psychological Impact of COVID-19 on Healthcare Workers: A Digital Learning Package. *Int J Environ Res Public Health*. 2020 Apr 26;17(9):2997. doi: 10.3390/ijerph17092997. PMID: 32357424; PMCID: PMC7246821.
7. Shoja, E., Aghamohammadi, V., Bazayr, H., Moghaddam, H. R., Nasiri, K., Dashti, M., Choupani, A., Garaee, M., Aliasgharzadeh, S., & Asgari, A. (2020). Covid-19 effects on the workload of Iranian healthcare workers. *BMC public health*, 20(1), 1636.
8. Krause M, Henderson A, Griner D, Rissland OS, Beard J, Bartels K. A Statewide Voluntary Movement Addressing the Shortage of Medical Supplies During the COVID-19 Pandemic. *Am J Public Health*. 2021 Sep;111(9):1595-1599. doi: 10.2105/AJPH.2021.306364. Epub 2021 Aug 26. PMID: 34436929; PMCID: PMC8589063.
9. “COVID-Related Nursing Shortages Hit Hospitals Nationwide | CIDRAP.” CIDRAP, <https://www.cidrap.umn.edu/news-perspective/2020/11/covid-related-nursing-shortages-hit-hospitals-nationwide>. Accessed 17 June 2022.
10. “Nurses’ Widespread Job Dissatisfaction, Burnout, And Frustration With Health Benefits Signal Problems For Patient Care - PMC.” PubMed Central (PMC), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3201822/>. Accessed 17 June 2022.
11. “Ethical Challenges of Nurses in COVID-19 Pandemic: Integrative Review - PMC.” PubMed Central (PMC), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8110276/>. Accessed 17 June 2022.
12. Spoorthy, M. S., Pratapa, S. K., & Mahant, S. (2020). Mental health problems faced by healthcare workers due to the COVID-19 pandemic-A review. *Asian journal of psychiatry*, 51, 102119. <https://doi.org/10.1016/j.ajp.2020.102119>.

