

COMMENTARY

Inclusive research and social determinants of health: 2 critical concepts at the forefront of furthering our understanding of COVID-19's impact on sleep and resilience

Commentary on Conroy DA, Hadler NL, Cho E, et al. The effects of COVID-19 stay-at-home order on sleep, health, and working patterns: a survey study of US health care workers. *J Clin Sleep Med*. 2021;17(2):185–191. doi:10.5664/jcsm.8808

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The COVID-19 pandemic has taken an enormous toll on individuals in the United States and countries throughout the world. When this commentary was written, there were more than 56 million people with COVID-19 and 1.3 million deaths worldwide.¹ The United States, in particular, had recorded more than 11.5 million patients with COVID-19, more than 70,000 hospitalizations, and more than 250,000 deaths.^{1,2} The toll has extended beyond in-hospital acute care, with the National Council for Behavioral Health reporting a 52% increase in the demands on behavioral health services in the United States during the pandemic.³

To combat the rising number of patients with COVID-19 and deaths, many U.S. states established stay-at-home orders in March 2020. In this issue of the *Journal of Clinical Sleep Medicine*, a study by Conroy et al⁴ investigates the differential impact of the stay-at-home order on sleep patterns, mood, and behaviors of health care professionals who worked from home vs those who continued to work in person. This is an important and timely subject given that the COVID-19 pandemic has caused extensive emotional and psychological stress not only for citizens worldwide but especially so for health care workers.

One of the study's strengths is that it presents valuable data on how the stay-at-home order has affected a wide range of variables, such as work and sleep schedule changes, media and bedtime screen exposure, substance use, diet and exercise, and mood.⁴ Key findings include the following: (1) health care workers had worse moods regardless of whether they worked from home or in person, (2) total sleep time was shorter for health care professionals who continued to provide care in person, and (3) worsened mood was associated with a significantly shorter total sleep time and more bedtime screen exposure.⁴ As mentioned in the article, these findings emphasize the need for targeted support programs and resources to improve health care professionals' mood and well-being.⁴ Moreover, the results suggest that more flexible work schedules and less screen time before bed can improve sleep behavior and mood among health care workers.⁴

Although the study presents significant findings and implications, there are also several limitations. Because of the study's design, the overall generalizability and impact must be weighed and contextualized in the face of this global pandemic. For example, the authors collected data via a voluntary survey, based on the respondents' self-reports. As recognized by the authors, the execution of the survey allowed for reporting bias and skewed participation toward those who felt more adversely affected by COVID-19.⁴ The authors also failed to discuss potentially valuable findings on how the stay-at-home order and pandemic have uniquely impacted frontline health care workers given that they work directly with patients with COVID-19. Although this outcome was not the study's primary aim, it would have been worthwhile to at least consider or mention any of these unique findings, especially because frontline health care workers are at greater risk of having poor mental health and well-being during the pandemic.⁵

In addition, although the study obtained a large sample size with a broad age range, the survey disproportionately represented individuals who were White, non-Latino (96%) women (78.5%) from Michigan (74%).⁴ The study cohort's lack of diversity presents particular generalizability concerns given the established disparate impact of COVID-19 across geography, race, ethnicity, age, and sex.^{5–8} When this commentary was written, Michigan had approximately 300,000 patients with COVID-19 and 8,500 deaths, numbers not only of variable prevalence and impact across the country but even across the Great Lakes State itself.¹ Thus, the regional cohort of primarily Michigan-based health care workers may not reflect health care professionals' experience from other state areas, regions, nations, or continents, underscoring the importance of enrolling diverse populations in studies to understand the impact of this global pandemic.

Although the survey represented many health professionals, more than 20% were psychologists.⁴ This demographic breakdown is particularly noteworthy because there has been a large spike in the pursuit of mental health and sleep care services since the pandemic began.⁹ In fact, there have been reports of

a nearly 15% increase in the number of prescribed sleep aids and a 30%–50% increase in the number of prescribed mood stabilizers among Americans during the pandemic.⁹ Psychologists likely disproportionately represent those called in to address these mental health needs, which could inadvertently result in an additional personal and psychological toll. The authors did not discuss this critical aspect of their study.

The authors also present another key limitation: The study did not explore the potential impact of the providers themselves or their family members contracting, treating, surviving, or succumbing to COVID-19.⁴ Furthermore, although data were collected on the presence of children in the homes of the health care workers,⁴ the study did not discuss how this variable may have impacted the respondents.

Overall, this study presents essential and relevant information on how COVID-19 and the stay-at-home order have negatively affected health care workers. As expressed by the authors, future studies should have a larger and more diverse sample to reflect how the stay-at-home order has differentially impacted health professionals.⁴ The authors also mention other important future directions, such as investigating the pandemic's impact on the U.S. health care system (eg, increased use of telemedicine) and the effect of different interventions (eg, support programs and flextime) on sleep and mood among clinical workers.⁴ Furthermore, similar studies can be conducted on COVID-19's impact on the sleep patterns, mood, and behaviors of frontline vs nonfrontline health care professionals. As we move into a full year of weathering this pandemic, investigating the long-term mental health effects on individuals working in health care will also be important. Finally, given that the pandemic may impact clinical providers differentially based on demographics, including age, sex, and familial care responsibilities,^{5,8} more focused studies can be conducted to investigate the influence of these factors. Our health care workers ultimately serve as the unspoken weapon to help us overcome COVID-19; thus, ensuring their health and well-being is critical to all of us in tackling this pandemic.

CITATION

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Both authors have seen and approved the manuscript. Work for this study was performed at Johns Hopkins University. The authors report no conflicts of interest.