JCSM Journal of Clinical Sleep Medicine

LETTERS TO THE EDITOR

Circadian rhythm sleep-wake disorders and the COVID-19 pandemic

W. Jeff Bryson, PhD1,2

¹Alliance Behavioral Health, LLC, Huntsville, Alabama; ²Fielding Graduate University, Santa Barbara, California

The global coronavirus (COVID-19; SARS-CoV-2) pandemic has far-reaching implications for worldwide health and psychosocial functioning. It is vital to understand the pathophysiology and epidemiology of this condition and to determine appropriate prevention and treatment options. It is also important to consider how the COVID-19 pandemic may affect broader aspects of people's lives and health. Circadian rhythm sleep-wake disorders are a group of conditions that may be overlooked under the current circumstances.

Circadian rhythmicity is a factor in immune system optimization.¹ Desynchrony of the circadian rhythm and immune system may lead to increased susceptibility to infections. This is an important consideration for health care providers and other essential workers.

Preventative measures such as social distancing and government-ordered isolation have impacted many worldwide. This resulted in many working or learning from home. This may impact those prone to delayed sleep-wake phase syndrome. Sleeping on one's natural rhythm is an option when work and learning demands are dissociated from time-of-day constraints. This is not expected to be a problem while this is allowable. It is unclear how occupational and academic schedules will change as the threat of COVID-19 recedes. Returning to extrinsically imposed schedules may result in an increased demand to provide treatments. Many with delayed sleep-wake phase syndrome may not realize there are treatment options. Efforts should be made to increase public awareness and screening. This may include public announcements, reaching out to referring providers, and contacting local academic institutes at all levels.

Shift work is also a potential risk for many health care providers and supply chain workers. Increased demand for services and increased potential for absences may leave those remaining in the workforce at greater risk for developing a circadian rhythm sleep-wake disorder. This may not always be preventable, but efforts should be made to increase awareness and take steps to ensure services are available to those in need. A preliminary study of medical staff responding to COVID-19 indicated circadian dysthymia as a risk. This is primarily associated with shift work and increased work hours around the clock.² This is likely to have regional effects with the highest expected incidences in designated hotspots.

The COVID-19 pandemic resulted in a rapid push for managing patient care via telehealth platforms. This will likely result in far-reaching changes to health care delivery and accessibility. This should be considered an opportunity to improve on health care disparities. The ability to telecommute may also lead to a diminished need for business travel, thus potentially reducing the risk for jet lag sleep-wake disorder. Telehealth delivery of services for circadian rhythm sleep-wake disorders is an option. Sleep specialists are encouraged to monitor and address circadian rhythm sleep-wake disorders in daily practice.

CITATION

Bryson WJ. Circadian rhythm sleep-wake disorders and the COVID-19 pandemic. *J Clin Sleep Med.* 2020;16(8): 1423.

REFERENCES

- Logan RW, Sarkar DK. Circadian nature of immune function. *Mol Cell Endocrinol*. 2012;349(1):82–90.
- Zhang C, Yang L, Liu S, et al. Survey of insomnia and related social psychological factors among medical staff involved in the 2019 novel coronavirus disease outbreak. *Front Psychiatry*. 2020;14(11):306.

SUBMISSION & CORRESPONDENCE INFORMATION

Submitted for publication April 20, 2020 Submitted in final revised form April 24, 2020 Accepted for publication April 28, 2020

Address correspondence to: W. Jeff Bryson, PhD, Alliance Behavioral Health, LLC, 250 Chateau Dr., Suite 145, Crestwood Professional Center, Huntsville, AL 35801; Email: jeff.bryson@alliancehsv.com

DISCLOSURE STATEMENT

The author has seen and approved the manuscript. The author reports no conflicts of interest.