



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.



Letter to the Editor

COVID-19, anxiety, sleep disturbances and suicide



Suicide is an important public health problem. During the epidemic of a highly contagious coronavirus 2019 disease (COVID-19) that was identified in China at the end of 2019, the risk of suicide may be exacerbated. COVID-19 has spread to other Asian countries, Europe, Australia, North and South America, and Africa. The COVID-19 epidemic is associated with anxiety, depression, distress, sleep disturbances, and suicidality [1–7].

Researchers in China examined psychological responses during the initial stage of the COVID-19 epidemic in the general population [3]. They found that 53.8% of respondents rated the psychological impact of the outbreak as moderate or severe, 16.5% reported moderate to severe depressive symptoms, and 28.8% reported moderate to severe anxiety symptoms. Another nationwide survey of more than 50,000 people in China during the COVID-19 epidemic showed that about 35% of the respondents experienced psychological distress [4]. Another research group in China sampled and analyzed the online posts from about 18,000 Chinese social media users before and after the declaration of COVID-19 in China on January 20, 2020 [5]. Researchers found that negative emotions such as anxiety, depression, and anger increased, while positive emotions and life satisfaction decreased.

A research group investigated a relation between social capital as measured by the Personal Social Capital Scale 16 (PSCI-16) and sleep quality in individuals who were self-isolated during the COVID-19 outbreak [6]. The authors found that anxiety was associated with stress and reduced sleep quality, and the combination of anxiety and stress reduced the positive effects of social capital on sleep quality. The authors noted that “anxiety and stress of isolated individuals were at high levels, while the sleep quality was low.” Researchers in China also examined a state of mental health of about 1250 health care professionals who treated coronavirus patients [7]. 50.4% of study participants reported depression, 44.6% anxiety, 34.0% insomnia, and 71.5% distress.

Sleep disturbances are associated with anxiety, depression, and suicidal behavior. Sleep abnormalities are a stand-alone risk factor for suicidal ideation, suicide attempts, and suicide death. Appropriate treatment of sleep disturbances is always vital and reduces symptoms of psychiatric disorders and suicidality. However, recognizing and treating insomnia are especially important during stressful times such as the COVID-19 epidemic because it may significantly reduce suicides. It is important to identify and treat sleep disorders not only among psychiatric patient but also among individuals who are not in psychiatric treatment. People with sleep disturbances need to be evaluated for suicidal ideation and suicide intent. Clinicians need to be educated on how to assess individuals with sleep disorders for suicidality.

Conflict of interest

None declared.

The ICMJE Uniform Disclosure Form for Potential Conflicts of Interest associated with this article can be viewed by clicking on the following link: <https://doi.org/10.1016/j.sleep.2020.04.019>.

References

- [1] Ornell F, Schuch JB, Sordi AO, et al. Pandemic fear” and COVID-19: mental health burden and strategies. *Braz J Psychiatry* 2020 Apr 3. <https://doi.org/10.1590/1516-4446-2020-0008>. pii: S1516-44462020005008201 [Epub ahead of print].
- [2] Shigemura J, Ursano RJ, Morganstein JC, et al. Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: mental health consequences and target populations. *Psychiatry Clin Neurosci* 2020 Apr;74(4):281–2. <https://doi.org/10.1111/pcn.12988>. Epub 2020 Feb 23.
- [3] Wang C, Pan R, Wan X, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 Coronavirus Disease (COVID-19) epidemic among the general population in China. *Int J Environ Res Publ Health* 2020 Mar 6;17(5):E1729. <https://doi.org/10.3390/ijerph17051729>.
- [4] Qiu J, Shen B, Zhao M, et al. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *Gen Psychiatr* 2020 Mar 6;33(2):e100213. <https://doi.org/10.1136/gpsych-2020-100213>. eCollection 2020.
- [5] Li S, Wang Y, Xue J, et al. The impact of COVID-19 epidemic declaration on psychological consequences: a study on active Weibo users. *Int J Environ Res Publ Health* 2020;17(6):E2032. <https://doi.org/10.3390/ijerph17062032>.
- [6] Xiao H, Zhang Y, Kong D, et al. Social capital and sleep quality in individuals who self-isolated for 14 days during the Coronavirus Disease 2019 (COVID-19) outbreak in January 2020 in China. *Med Sci Monit* 2020;26:e923921. <https://doi.org/10.12659/MSM.923921>.
- [7] 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 Mar 2;3(3):e203976. <https://doi.org/10.1001/jamanetworkopen.2020.3976>.

Leo Sher*

James J. Peters Veterans' Administration Medical Center, Bronx, NY, USA

Department of Psychiatry, Icahn School of Medicine at Mount Sinai, New York, NY, USA

* James J. Peters VA Medical Center, 130 West Kingsbridge Road, Bronx, NY 10468, USA. Fax: +1 718 741 4703. E-mail address: Leo.Sher@mssm.edu.

19 April 2020

Available online 25 April 2020