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.

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Editorial

On the role of sleep hygiene in health management during COVID-19 pandemic

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To the Editor

The article by Kocevska et al. shows the variable effect of the lockdown during COVID-19 pandemic on sleep quality. We would like to outline the role of sleep in regulating the immune function and host defense, with potential implications in healthcare and disease management [1,2]. This is relevant in the current outbreak of COVID-19, where the disease burden is regulated by the effectiveness of the host immune defense. Indeed, adequate sleep quantity/quality has been shown to promote immune and inflammatory homeostasis, reduce infectious risks and improve vaccination responses by regulating immunological memory, and innate and adaptive immunity. The enhancement of sleep during an infection may fine-tune the immune system to boost host immunity, leading to recovery [1]. Sleep after vaccination has shown to double the antigen-specific immune response. This beneficial immune-supporting effect of sleep is mostly evident in the context of circadian rhythm disruption, impaired sleep–wake cycle and chronic sleep disturbance, which may be a consequence not only of medical conditions, but also of the 24/7 modern society, changes across the lifespan as observed in the elderly, as well as during the COVID-19 lockdown in the everyday life. Circadian rhythm disruption and especially sleep problems are increasingly prevalent and are associated with altered immune parameters, including chronic low grade inflammation, dysfunctional adaptive and innate immunity, with predominant Th2 immunity, thus heightening the susceptibility to infection and negative outcomes, and to worse clinical protection after vaccines, thus increasing the risk for unresolved chronic inflammatory diseases and mortality [1,3].

Health care professionals and clinicians should monitor and warn against the presence of sleep disturbances in the general and patient populations [4], and devote attention to the importance of encouraging and implementing sleep hygiene as a protective factor contributing to prevent and manage infectious disease and other immune-mediated diseases.

Conflict of interest

The authors declare that they have no relevant conflicts of interest.

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.2020.11.036.

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