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REM: A PUBLICATION FOR RESIDENTS AND FELLOWS

Sleepless in a pandemic: a medical student's perspective

Ryan Deutsch, MSIV[1]; Zarmina Ehsan, MD[1,2]

[1]School of Medicine, University of Missouri-Kansas City, Kansas City, Missouri; [2]Division of Pulmonary and Sleep Medicine, Children's Mercy-Kansas City, Kansas City, Missouri

The COVID-19 pandemic has had a significant toll on our lives. Sleep, a vital need for well-being and executive functioning, has been impacted as well. Evidence from studies worldwide is highlighting insomnia as an emerging comorbidity in the COVID-19 pandemic, particularly in health care professionals. The mortality rate of COVID-19 coupled with isolation related to social distancing has compounded worry and anxiety, leading to poor sleep quality and worsening of insomnia as reported by a study in France.[1] In the case of health care workers and medical students, these circumstances have the potential to be amplified. For medical students in particular, the COVID-19 pandemic has changed the routine and methods by which students learn and carry out their daily activities. These drastic changes have led to potentially harmful effects on their sleep habits and routines.

With their direct exposure to patients with COVID-19, medical students' levels of anxiety and stress are likely much greater, in turn leading to unhealthy sleep habits. A survey of more than 1,500 health care personnel in China concluded that more than one-third of the participants were experiencing insomnia and changes to their sleep habits because of the psychological and physical changes to their schedule and work expectations during the pandemic.[2] The participants cited stress as the primary cause of their insomnia along with fear of contracting the virus while at work and potentially infecting others in the community and their own family. In fact, many workers reported being afraid to go home at night because of the risk of passing on the virus to their own family. A study in Australia that surveyed 268 medical professionals across many different medical practices and specialties further confirmed that health care workers are at extremely high risk of insomnia, with two-thirds of surveyed doctors reporting insomnia related to the added stress and anxiety associated with COVID-19.[3] A cross-sectional study across medical specialty settings in Iraq concluded that those physicians treating suspected or confirmed patients with COVID-19 had worse sleep compared to those who were not treating such patients. Moreover, the degree of poor sleep was proportional to the days spent treating patients with COVID-19.[4] Although there is no currently published study focusing solely on medical students, one can extrapolate that students in their clinical rotations are facing similar challenges amidst COVID-19.

In general, poor sleep is common among medical students worldwide.[5] Sleep during medical school is affected by both intrinsic (biological) and environmental factors. Biological factors include hyperarousal of the autonomic nervous system and overactivation of the hypothalamic-pituitary-adrenal axis.[5] Environmental contributors such as stressful events (examinations) or rumination and excessive worry (about grades, assignments, peer approval and friends, or family) are known to perpetuate chronic insomnia.[5,6] Therefore, medical students are a high-risk group predisposed to insomnia (at baseline), which is likely compounded amidst a pandemic because of multiple factors.

With the ongoing COVID-19 pandemic, our daily routine as medical students has drastically changed and, in turn, further impacted our sleep. Country-wide stay-at-home orders have forced us to stay home. Wellness opportunities focusing on school-life balance such as exercising at the university gym or interacting with peers (in person) are no longer options.[6] This loss of physical activity has led to a change in daily routine and the disruption of an already erratic sleep-wake schedule. The alarming mortality of COVID-19 and the uncertainty of the future has added further stress. Senior students are worried about residency interview season, whether in-person interviews will occur, and what the new norm will be. Many students have been forced to move home with their families during this pandemic. On a personal note, these changes have added a tremendous amount of stress to one author's (RD) daily routine. Both parents work full-time, and the author's 3 younger siblings are all working from home. This development has become a significant distraction and has caused interruptions to studying and productivity. Many of the author's classmates have experienced a tremendous amount of hardship during this pandemic. With a shift to online learning, the lack of patient interaction and in-person instruction is contrary to traditional medical school standards. With limited live patient interaction, it is uncertain what the future of medical training will look like.

Cognitive-behavioral therapy techniques for insomnia are the mainstay of insomnia management (and are preferable to medications).[7] Some suggestions to offer medical school colleagues, based on the author's personal experience, to help maintain a healthy and more sustainable sleep schedule would be to wake up at the same time every day, go to bed only when sleepy, and leave the bed if unsuccessfully attempting sleep. This strategy is a component of cognitive-behavioral therapy techniques for insomnia known as stimulus control therapy,

ie, strengthening the association of the bed with sleep and weakening its link to wakefulness. In addition to stimulus control, the author also recommends avoiding excessive napping, which can disturb nighttime sleep, and practicing good sleep hygiene, which includes preparing the bedroom environment for sleep (keeping it quiet, dark, and cool) and changing lifestyle habits (such as caffeine intake) to enable better sleep. These methods can help students get on a better schedule and maintain healthy habits.

It is important for students to continue to complete the same or similar activities to those they are completing at school. These could include physical activities and other interests they enjoy to keep themselves healthy and help get their mind away from studying. Exercise, hobbies, and meditation are just a few activities in which students can engage to separate themselves from the stressors of medical school (relaxation training is another component of cognitive-behavioral therapy techniques for insomnia). If students are having problems getting access to workouts or meditation exercises, a quick YouTube search can yield a number of free and effective workouts and exercises that can be completed within the confines of the home. Further, the author recommends that medical students separate themselves from their phone and other screen devices before bed.

Last, and perhaps most important, it is imperative that we keep our mental health in check during the pandemic. Various mindfulness apps and resources are available within medical schools to help students tackle stress and anxiety (which also impact sleep). Other recommendations include avoiding foods and beverages too close to bedtime, avoiding engaging in stressful/stimulating activities such as working or studying too close to bedtime, and avoiding napping during the day. These efforts are necessary to improve overnight sleep, which can in turn improve daytime functioning and well-being.

In general, the COVID-19 pandemic has brought significant uncertainty to the life of a medical student, which has in turn affected sleep. Medical students are under normal conditions at high risk of insomnia and other problems associated with poor sleep quality. These issues, exacerbated by the pandemic, lead to exhaustion, which leaves less time available to focus and concentrate on studying and completing assignments. If medical students continue to implement a daily routine and sleep schedule, engage in physical exercise and other activities that separate themselves from the stressors of medical school, and remove stimuli such as phones and other devices close to bedtime, then a normal sleep schedule can be achieved. We all hope that this pandemic is over soon. In the interim, we can try to make sure that we are well rested and functioning at our best.

CITATION

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Address correspondence to: Zarmina Ehsan, MD, Division of Pulmonary and Sleep Medicine, Children's Mercy Hospital, 8601 Gillham Road, Kansas City, MO; Tel: (816) 983-6355; Fax: (913) 696-8519; Email: zehsan@cmh.edu

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