



Non-Pharmacological Interventions to Improve Quality of Sleep during COVID-19 Pandemic

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Received: Oct 2 2020

Accepted: Oct 5 2020

Citation to this article:

Ghalehbandi MF, Saeed F, Kashaninasab F. Non-Pharmacological Interventions to Improve Quality of Sleep during COVID-19 Pandemic. *J Iran Med Counc.* 2020;3(4):214-15.

During COVID-19 pandemic, factors such as incidence of uncontrollable conditions, uncertainty of the future, and changes in daily life patterns affect the mental and physical health of individuals. Anxiety, depression, and stress caused by the pandemic can significantly change the quality of sleep in people. Some studies have shown that young women, individuals with high levels of fear of COVID-19, and people with a history of psychiatric problems are expected to experience sleep problems such as insomnia more severely. Poor sleep can weaken the immune system and make individuals more vulnerable to viral infections. Under these conditions, optimal sleep patterns can help regulate mood, improve brain function, and boost energy during the day. However, maintaining good health is not an easy task in quarantine conditions due to the limitations in social communication and sedentary lifestyle (1,2).

The focus of this letter is on mental health of staff, general practitioners, and sleep specialists to educate their patients and people in the community about how to improve quality of sleep and deal with sleep problems during COVID-19 pandemic. The following are some typical suggestions to overcome the negative effects of the current pandemic:

1. Keep a regular schedule and sleep patterns

Wake up and go to bed at a regular time every day. Adults often need 6 to 8 hours of sleep a night, so try not to sleep more than this time. If you suffer from insomnia at night, avoid napping during the day; but if you feel exhausted during day and believe that napping helps you improve your night sleep, you may take a nap (maximum time: 30 to 45 min) before 2 o'clock in the afternoon (3,4).

2. Be active and expose your body to sunlight

Spend some hours on exercising. If possible, use online applications to do better and more accurate daily exercises. It is better to exercise at the beginning of the day. Avoid strenuous activities several hours

before bedtime. Since daily exposure to sunlight helps regulate the sleep-wake cycle, try to exercise outdoors (Such as in the backyard) if possible. Also, make sure to keep a safe distance from others while doing exercise. During the day, let the sunlight in by pulling back the curtains, and help maintain your sleep-wake cycle by dimming the lights during sunset and at night (5).

3. Relax and do not take your worries to bed

These days, people are often following the COVID-19 news on social media, which requires looking at the screens of mobile phones, computer, and television. The bright blue light emitted from the screen commands the brain to delay the secretion of melatonin, a hormone which is essential for setting a sleep schedule. Switch off your electronic devices and do not follow the news about one hour before bedtime. Name this time as “my time” and stay away from any worries and stressors. Spend about 10 to 20 *min* of the day to write down your concerns on paper and then try to find solutions to them. During the day and before going to bed, keep your mind calm with methods such as reading books and magazines, taking a hot bath, listening to relaxing music, and practicing yoga. Connect with your friends and relatives online through social media and talk about your feelings and subjects other than the COVID-19 pandemic.

4. Observe sleep hygiene principles

Keep the bedroom temperature cool and use comfortable mattresses and sheets. The bedroom should be quiet and dark. Use the bed only for sleeping and sexual activity, and avoid doing such activities as reading books, eating, watching movies, and talking on the phone in bed. Avoid sleeping in the children’s bedroom or on their beds. Avoid smoking especially 4 hours before bedtime. Avoid caffeinated drinks 6 hours before bedtime. Set a regular schedule for your meals and avoid eating heavy foods 2 to 4 hours before bedtime (a light snack before bed is OK). If your daily activities have been limited due to the pandemic, reduce the amount of food intake (3,4). The theoretical basis for the above tips has been approved in many articles. In fact, poor sleep during COVID-19 pandemic can lead to chronic insomnia and other sleep disorders, especially in vulnerable individuals. Managing sleep problems during COVID-19 pandemic can diminish stress and improve mental and physical health. Cognitive Behavioral Therapy for insomnia (CBT-I) is recommended as the first-line treatment for insomnia. If CBT-I is ineffective or unavailable, pharmacotherapy might be effective. Administration of melatonin, short-term use of benzodiazepines and sedating antidepressants (If patient has a co-morbid mental disorder) can be useful (3,6).

References

1. Lin LY, Wang J, Ou-yang XY, Miao Q, Chen R, Liang FX, et al. The immediate impact of the 2019 novel coronavirus (COVID-19) outbreak on subjective sleep status. *Sleep Medicine* 2020 Jun 1.
2. Huang Y, Zhao N. Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry Res* 2020;288:112954.
3. Altena E, Baglioni C, Espie CA, Ellis J, Gavriloff D, Holzinger B, et al. Dealing with sleep problems during home confinement due to the COVID-19 outbreak: Practical recommendations from a task force of the European CBT-I Academy. *J Sleep Res* 2020;29(4):e13052.
4. American Academy of Sleep Medicine -AASM: Summary of CDC recommendations relevant for sleep practices during COVID-19 (Aug. 27)
5. Morin CM, Carrier J, Bastien C, Godbout R, and On behalf of the Canadian Sleep and Circadian Network. Sleep and circadian rhythm in response to the COVID-19 pandemic. *Can J Public Health* 2020;111(5):654-7.
6. Reiter RJ, Abreu-Gonzalez P, Marik PE, Dominguez-Rodriguez A. Therapeutic algorithm for use of melatonin in patients with COVID-19. *Front Med* 2020;7:226.