COVID-19 related anxiety (b = -0.543, p < 0.001). In contrast, sleep duration was not significantly related to general stress or COVID-19 anxiety after controlling for sleep quality.
Conclusion: The present data supports that daily variations in sleep quality are related to a person's overall stress levels and COVID-19 anxiety. These findings may have implications for the role of good sleep in mitigating the increases in stress that have resulted from the COVID-19 pandemic.
Support (if any): Vargas: K23HL141581

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POTENTIAL LONGITUDINAL ASSOCIATION BETWEEN COVID-19 INFECTION OUTCOMES AND INSOMNIA SYMPTOMS.

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Introduction: The COVID-19 pandemic has had an unequivocal negative impact worldwide, including increases in stress related to social isolation, unemployment, grief, and fear of contracting the virus. This increased stress has likely led to a greater prevalence of sleep continuity disturbance (i.e., insomnia) in the general population. The goal of the present study was to assess the prevalence of sleep continuity disturbance (i.e., insomnia) in the United States during the initial months of the pandemic. In addition, longitudinal assessment is currently ongoing in order to further assess participant experiences with COVID-19. Specifically, these follow-up data will be used to assess whether, among those that contracted COVID-19, insomnia at baseline (Time 1) predicts worse outcomes (e.g., symptoms of greater frequency, duration, or severity) upon follow-up (Time 2).
Methods: A national survey was conducted from April-June 2020. Participants answered questions regarding social distancing practices, mood, sleep, physical activity, and COVID-19 symptoms. Insomnia symptom prevalence and severity were estimated with a retrospective sleep diary and the Insomnia Severity Index (ISI). A follow-up assessment is currently ongoing and will be completed in March 2021. The follow-up survey consists of similar questions and additional items regarding COVID-19 testing, symptoms [frequency, duration, and severity], and outcomes [outpatient treatment, incidence and duration of hospitalization, and incidence and type of respiratory assistance].
Results: 4,133 adults (Mage = 45.8 years; range = 18 - 86 years; 78.7% female) completed the baseline survey. The prevalence of clinically significant sleep continuity disturbance (≥ 30 minutes) was 44.6% for sleep latency problems and 36.2% for wake after sleep onset problems. Nearly 34% of subjects reported average total sleep times of less than 7 hours. Over 17% of subjects (n = 719) reported total ISI scores in the clinical range (ISI total score ≥ 15).
Conclusion: The present study suggests the prevalence of clinically significant insomnia symptoms during COVID-19 remain high in the general population (17–45% depending on definition of insomnia). Similarly, the prevalence of short sleep is elevated. Whether these incident data are associated with COVID-19 outcomes remains to be determined and will be the subject of follow-up analyses in January/February 2021.
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THE ROLE OF INSOMNIA SYMPTOMS IN THE RELATION BETWEEN PERCEIVED VULNERABILITY TO DISEASE AND COVID-19 ANXIETY.

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Introduction: Individuals who report greater perceived vulnerability to disease (e.g., experience emotional discomfort to situations where pathogen transmission is likely) also have the tendency to endorse more anxiety. Insomnia is also associated with greater anxiety. This study assessed (1) whether perceived vulnerability to disease was associated with increased anxiety related to COVID-19 and (2) whether this association was moderated or mediated by insomnia symptoms.
Methods: 1199 primarily female (n = 845), white (n = 982) participants (mage = 30.52) completed an online survey including the Sleep Disorder Symptom Checklist- 25 (SDS-CL-25), Perceived Vulnerability to Disease (PVD) scale, and a rating of COVID-19 anxiety (scale = 0–100; m = 55.81, sd = 25.39). Insomnia symptoms were calculated using the sum of SDS-CL-25 items 3–6 (m = 7.55, sd = 3.58). The PVD subscales germ aversion (GA; m = 4.18, sd = 1.22) and perceived vulnerability to infection (PVI; m = 3.69, sd = 1.39) were also computed.
Results: Regressions were used to test if insomnia mediated the impact of GA and PVI on COVID-19 anxiety. The relations between COVID-19 anxiety and insomnia (b = 1.30, t(1197) = 6.47), GA (b =3.60, t(1197) = 6.09), and PVI (b =3.73, t(1197) = 7.20) were significant (p's < .001). Mediation analyses using the mediation package in R (bootstrap estimation = 1000 samples) showed direct effects of GA (b = 3.26, 95% CI = 2.04 – 4.42, p < .001) and PVI (b = 3.16, 95% CI = 2.00 – 4.22, p < .001) and mediation effects of insomnia (b =.44, 95% CI = .19 - .73, p < .001; b =.58, 95% CI = .33 - .86, p < .001, respectively). According to the moderation analyses, the association between PVD and COVID-19 anxiety did not significantly vary at different levels of insomnia.
Conclusion: Results suggest insomnia symptoms partially mediate the relationship between perceived vulnerability to disease and COVID-19 anxiety. These associations are likely bidirectional, and therefore, more work in this area is needed, especially with regard to how improved sleep may attenuate risk factors for anxiety.
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SELF-ISOLATION DUE TO COVID-19 WAS NOT ASSOCIATED WITH CHANGES IN DEPRESSION, SLEEPINESS, AND INSOMNIA IN SHIGA PREFECTURE, JAPAN

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Introduction: We aimed to analyze the changes in depression, sleepiness, insomnia, and sleep habits in relation to the degree of self-isolation due to COVID-19 pandemic. A state of emergency was declared for the whole of Japan on 7 April 2020. People in Shiga prefecture were recommended to stay at home and refrain from moving to other prefectures from 8 April to 31 May 2020.
Methods: We enrolled 54 patients who regularly visited the sleep outpatient clinic in Shiga University of Medical Science Hospital, Japan. We compared the sleep habits, depression (Patient Health Questionnaire-9: PHQ-9), insomnia (Athens Insomnia Scale: AIS), and sleepiness (Epworth Sleepiness Scale: ESS) of patients, one year before (from April to July 2019), during (May 2020) and six months after (Nov 2020) the self-isolation period due to the COVID-19. We conducted repeated measures ANOVA to examine changes.