

treating sleep complaints during the coronavirus pandemic. Additional research is warranted to determine whether psychosocial interventions targeted towards older adults with low social integration can reduce observed differences in sleep quality.

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222

COVID-19 RELATED STRESS INTENSIFY THE IMPACT OF CHILD MALTREATMENT ON SLEEP QUALITY

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Introduction: Child maltreatment (CM) is a significant stressor that is associated with sleep problems in children and adolescents. The COVID-19 pandemic introduces new psychosocial stressors, which may be particularly harmful to youth already experiencing stress in the home environment. Using multi-dimensional (threat vs deprivation) assessments of CM, the present study aimed to test whether COVID-19 related stress intensified the association between maltreatment (abuse vs neglect) and sleep problems among youth.

Methods: This study utilized data from a longitudinal sample of youth (N=126; Mage at T1=12.9) assessed between January 2019 and March 2020 (T1) and after the beginning of the COVID-19 pandemic (May 2020; T2). Latent factors for COVID-19 related stress included three questions asking about negative changes, uncertainty about the future, and stress-induced by disruptions. CM at T1 was measured with the Childhood Trauma Questionnaire (CTQ). Multidimensional aspects of CM included a threat factor (sum of Emotional, Physical, and Sexual Abuse) and a deprivation factor (sum of Emotional and Physical Neglect). Sleep-related problems at both T1 and T2 were assessed using the Pittsburgh Sleep Quality Index (PSQI) global score. Structural equation modeling was conducted in Mplus 8.1 to test direct and interaction effects of CM and COVID-19 related stress on sleep problems at T2 while controlling for sleep problems at T1 and demographic covariates.

Results: Threat-related abuse was significantly associated with increased sleep problems at T2 ($\beta = .43$, $p < .01$) but neglect was not ($\beta = .03$, $p = .85$). Additionally, COVID-19 related stress significantly intensified the link between abuse and sleep problems ($\beta = .14$, $p < .05$) as well as between neglect and sleep problems ($\beta = .43$, $p < .01$) at T2. Among youth who experienced higher levels of CM, increased COVID-19 related stress exacerbated sleep problems.

Conclusion: These results bolster extant research on the negative impact CM bears on youth sleep health and indicates that COVID-19 stress may exacerbate sleep problems. Our findings inform future prevention and intervention efforts that aim to reduce sleep problems among youth who experience CM during the COVID-19 pandemic.

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223

SLEEP DURATION AND SLEEP QUALITY IN CHRONIC CANNABIS USERS AND NON-USERS

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Introduction: Cannabis use is on the rise in the United States, with 10% of adults reporting cannabis use in the past 30 days. Users commonly report consuming cannabis to improve sleep despite the lack of research that supports an association between cannabis use and sleep.

In this pilot study we sought to examine objective measures of sleep duration and sleep quality among non- and chronic-cannabis users, and any patterns in relation to the time since consumption of cannabis.

Methods: Chronic cannabis users (cannabis used 2 or more times/week) and non-users provided up to 2-weeks of actigraphy (ActiGraph wGT3X-BT), worn on the wrist and verified by sleep diary. Chronic cannabis users also reported the date, time, amount, and route of their cannabis use. Mixed-effects models with participant as a random factor were used to examine: 1) the relationship between daily sleep parameters in cannabis non-users vs. users; and 2) the elapsed time between cannabis use and time in bed in chronic cannabis users.

Results: Chronic cannabis users (n=6) and non-users (n=7) collectively provided 151 nights of sleep. Participant characteristics (38.5% female; age, 25.8 years \pm 4 years; BMI, 23.4 kg/m² \pm 3.4 kg/m²) did not significantly differ between groups. Cannabis use was associated with decreased total sleep time (measured in hours, $\beta = -0.58$, $p < 0.001$) and increased wake after sleep onset (WASO, $\beta = 32.79$, $p = 0.005$), but not with the number of awakenings ($\beta = 6.02$, $p = 0.068$). Among chronic cannabis users, cannabis use within two hours of bed was associated with increased sleep latency compared to use greater than two hours ($\beta = 6.66$, $p = 0.026$). There was no association between time of cannabis use and WASO ($p = 0.621$) or the number of awakenings ($p = 0.617$).

Conclusion: In this pilot study of objectively measured sleep, we found that chronic cannabis use compared to non-use is associated with decreased sleep duration of otherwise healthy adults. Cannabis used closer to bedtime is associated with increased sleep latency. Additional studies that are able to assess the mode and dosage of use are needed to further understand the effects of cannabis and its components on sleep.

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224

DIGITAL MEDIA USE AND SLEEP IN COLLEGE STUDENTS DURING COVID-19 PANDEMIC

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Introduction: To address the growing sleep deficiency epidemic in college students, more research is needed on recent factors that might affect sleep, such as the digital media use in this young adult population. Furthermore, sleep and the use of digital media can be heavily influenced by the COVID-19 pandemic. The purpose of this study is to examine the use of digital media during the pandemic, and its relationship with sleep disturbance, social isolation, physical and mental health in college students.

Methods: An online survey was sent out to college students enrolled in an urban university. Validated questionnaires including PROMIS (Sleep Disturbance, Global Mental Health, Global Physical Health, Social Isolation), Nighttime Media Usage, and Internet Addiction Test were included in the survey. In addition, focus groups were conducted with a subsample of survey respondents to elicit a comprehensive understanding of how digital media use in daily life influences sleep during the COVID-19 pandemic. Data collection was conducted during June to December 2020.

Results: A total of 358 students completed the online survey. Sleep disturbance was significantly related to greater digital media use for recreational purposes two hours before bedtime (62.6 \pm 28.1 minutes, $r = 0.110$, $p = 0.046$), and a higher frequency of playing games ($r = 0.148$, $p = 0.007$) and using social media after going to bed ($r = 0.142$, $p = 0.10$).