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0045

EXAMINING THE ASSOCIATION OF TRAIT SLEEP REACTIVITY WITH CHANGES IN SLEEP, DEPRESSION, AND ANXIETY IN THE COVID-19 PANDEMIC

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Introduction: Sleep Reactivity (SR), a trait-like tendency for stressful events to trigger sleep disturbances, is an established diathesis for insomnia and depression. However, no studies to date have examined SR in the context of the COVID-19 pandemic and it's related restrictions. Thus, the goal of this analysis is to test whether SR confers a vulnerability for greater sleep and mood symptoms due to the stress of COVID-19 and it's related restrictions. We hypothesized that (1) The onset of the pandemic will trigger greater increases in insomnia symptoms in highly sleep reactive individuals. 2) Sleep-reactive individuals would experience reduced recovery of insomnia, anxiety, and depression symptoms over the course of the pandemic.
Methods: SR, insomnia, anxiety, and depressive symptoms were assessed by the Ford Insomnia Response to Stress Test (FIRST), Insomnia Severity Index (ISI), Beck Anxiety Inventory (BAI), and Beck Depression Inventory (BDI II), respectively, at two time points (early-pandemic, 6-month follow-up). Additionally, participants retrospectively reported ISI prior to the pandemic. N = 253 adults from Stanford's COVID-19 Pandemic Sleep Study (April-November 2020) provided baseline insomnia measures, and were excluded if they reported pre-pandemic clinical insomnia (ISI >10). Ranked-correlation tests were used to test the current hypotheses. Paired t-tests were used to evaluate changes in mean insomnia, depression, and anxiety scores. Covariates included essential worker status, sex, and age.
Results: ISI after COVID-19 was significantly higher than retrospective, pre-pandemic ISI ($t = 8.2$, $d = 0.55$, $p < 0.0001$). However, SR was not significantly correlated with the pandemic-related increase in ISI ($\rho = 0.07$, $p = 0.34$). Depression significantly increased after 6-months ($t = 2.0$, $d = 0.27$, $p = 0.047$), whereas anxiety did not ($t = 1.7$, $d = 0.26$, $p = 0.10$). Neither changes in depression nor anxiety were predicted by SR (Depression: $\rho = 0.15$, $p = 0.32$; Anxiety: $\rho = -0.13$, $p = 0.40$).
Conclusion: Insomnia and depression, but not anxiety, increased with the onset of the pandemic. However, trait SR was not a predisposing factor for pandemic-related sleep and mood changes. This is the first analysis examining SR as a risk factor for insomnia and mood symptoms in the pandemic.
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CIRCADIAN MISALIGNMENT IS ASSOCIATED WITH COVID-19 INFECTION

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Introduction: Sleep disturbances are frequently reported in patients infected by Covid-19, but the role of sleep-wake behaviors as a risk factor to contract Covid-19 has up to now poorly been studied. The aim of this study was to explore the relationship between usual sleep-wake behaviors and the risk of Covid-19 infection in a population of subjects suspect of contact or infection with SARS-CoV-2.
Methods: Cross-sectionnal monocentric study set during a non-confined period in winter 2021. Recruitment took place in a Covid-19 ambulatory screening platform. Subjects between 18 and 45 years old were included whether they were symptomatic or not, healthcare workers or not, in contact with a Covid-19 case or not. They were asked about their usual sleep-wake behaviors. Usual sleep duration and sleep timing were explored during workdays and free days. Circadian misalignment was defined as at least 2 hours shift of circadian alignment (defined as the difference between mid-sleep during workdays and mid-sleep during free days, mid sleep as the middle between bedtime and getting up time).
Results: One thousand eighteen subjects were included in our study (acceptance rate: 10.8%, 39% of men, mean age of 28± 8). Habitual mean sleep duration was equivalent in both groups (7h47 vs 7h49, p=0.733). Circadian misalignment greater than 2 hours concerned 33% of subjects in the Covid-19 group versus 20% of the control group (p=0.026). After adjustment on age, gender, BMI and work schedules, subjects presenting a circadian misalignment superior to 2 hours had 2.07 more chances to be tested positive than subjects which respected on identical sleep-wake timing between workdays and free days (OR=2.07, 95%CI= [1.12-3.80], p=0.024).
Conclusion: Altered sleep not only is present in subjects infected by Covid-19 but could be responsible of a higher change to be infected. Chronobiological impact on immune system and higher chances to be exposed to social contacts could explain our findings which deserve to be confirmed through a future large cohort study. Ultimately regular sleep-wake pattern could constitute a privileged prevention target to fight Covid-19 infection.
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RELATIONSHIP OF EMOTIONS, SOCIAL ISOLATION, AND COVID-RELATED MEDIA TO SUBJECTIVE SLEEP QUALITY DURING THE COVID-19 PANDEMIC

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Introduction: The COVID-19 pandemic safety restrictions led to changes in social interactions and information seeking about the virus. For some, these led to increased negative emotions, feelings of social isolation, and increased COVID-related media consumption. We examined the relationship of these variables to subjective sleep quality from participant daily diaries kept early in the pandemic.
Methods: From April 20th-May 12th, 2020, college (students, faculty/staff, alumni, parents) and local (churches, community centers, libraries) community members (N=94, 72 women, ages 18-77) completed a 30-minute survey for before and during social distancing (measuring: mental health, personality, social distancing, and demographics) for possible prizes. Participants then completed daily evening and morning diaries for 5-14 days describing daily affect, social isolation, emotion regulation, COVID media consumption, and subjective sleep quality.
Results: Emotions: During the pandemic, poor sleep quality was predicted by less positive mood ($r(91)=.486$, $p<.001$) and more