

effort are at high risk for exposure and contraction. This creates an urgent need to better understand whether sleep may contribute to COVID-19 symptom onset, severity, and recovery. This study examined the relationship between subjective and objective sleep during infection.

Methods: Fifty volunteers (age 35.15±9.97) considered high risk for COVID-19 participated in the study. The sample consisted mostly of medical personnel (93.27%) working through the pandemic. Over six months, participants completed monthly surveys and daily logs via Qualtrics. These surveys included questions about sleep, infection symptoms, COVID-19 tests and diagnoses, and mood. Wrist-worn actigraphy was collected continuously throughout the study. Sleep duration, latency, wake after sleep onset, and efficiency were processed using Philips Actiware 6.0. Actigraphy and survey data were analyzed using SPSS v. 25.

Results: Sixty-two percent of participants experienced infection symptoms. Those experiencing symptoms were significantly more likely to report having poorer sleep quality $t(255.59)=5.78, p<.001$, poorer mood upon waking $t(258.03)=6.53, p<.001$, feeling less alert upon waking $t(255.61)=4.56, p<.001$, and spending more time awake at night $t(2.66.98)=-7.29, p<.001$. Results showed that compared to those asymptomatic, participants with cough $t(2164)=2.07, p=.039$, diarrhea $t(2161)=2.51, p=.012$, and headache $t(106.18)=7.05, p<.001$ all had significantly less total sleep time, while those with body aches spent significantly more time awake at night $t(2164)=2.10, p=.036$.

Conclusion: This preliminary examination of the data broadly suggests that medical personnel experiencing infection symptoms may have difficulty obtaining adequate sleep. Further, specific infection symptoms may share a stronger relationship with key sleep parameters than others. These findings support further testing of the bi-direction relationship between infection symptoms and sleep. Results from this research will contribute to enhancing prevention, detection, and treatment guidance related to future domestic and globally-experienced infections.

Support (if any): Support for this study comes from the Military Operational Medicine Research Program of the United States Army Medical Research and Development Command.

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ASSOCIATIONS OF SLEEP QUALITY AND BURNOUT IN CLINICIANS DURING THE COVID-19 PANDEMIC

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Introduction: Clinicians have faced unprecedented challenges in care delivery during the COVID-19 pandemic due to increases in patient volume/acuity, alongside fears of COVID-19 exposure. Increased burnout rates are associated with chronic health condition risk and adverse organizational outcomes. It remains unclear whether sleep is associated to burnout in clinicians treating COVID-19 patients.

Methods: A cross-sectional electronic survey was distributed via email across 3 hospital listserves from September to November, 2020. Clinicians delivering direct care to COVID-19 patients were eligible. Clinician burnout was measured using a single item from AHRQ's Mini-Z survey. We assessed sleep using the Pittsburgh Sleep Quality Index (PSQI). Binary logistic regressions were used to determine the relationship between PSQI global score (global sleep quality) and burnout, controlling for age, race/ethnicity, gender, length of time employed, whether clinical role changed during COVID-19, and anxiety. In a separate model, we investigated the association between burnout and independent PSQI subcomponents: 1) sleep duration ("Hours of

sleep per night"), and 2) subjective sleep quality ("How would you rate your sleep quality overall") entered together, with the above covariates.

Results: The final sample included 315 clinicians, predominantly nurses (57% White, 15% Hispanic/Latino, 89% female). Burnout symptoms were reported by 61.6%, and poor global sleep quality (PSQI global score >5) in 84.4% of participants. Poor global sleep quality (PSQI global score >5 vs. ≤5) was significantly associated with the presence of burnout symptoms (OR: 2.52, 95% CI: 1.20–5.28, $p=0.015$). In the secondary model, self-reported sleep quality (rating of fairly or very bad vs. rating of fairly or very good) was significantly associated with burnout (OR: 4.13, 95% CI: 2.33–7.32, $p<0.05$), whereas short sleep duration (<6 h vs. ≥6 h) was not (OR: 0.726, 95% CI: 0.41–1.30, $p=0.28$).

Conclusion: Poor sleep quality is common and associated with increased burnout in clinicians delivering care to COVID-19 patients. Interestingly, sleep quality appears to be more strongly related to burnout than sleep duration. Increased evidence about the negative implications of poor sleep and burnout are emerging. Interdisciplinary efforts aimed at promoting effective sleep quality in clinicians during this pandemic may lead to improvements in long-term clinician physical and psychological health.

Support (if any):

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LONGITUDINAL STABILITY OF SLEEP AND HEALTH CORRELATES IN ADULTS WITH AUTISM SPECTRUM DISORDER

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Introduction: Individuals with Autism Spectrum Disorder (ASD) experience sleep disturbances to a greater degree than the general population. The majority of research investigating sleep disturbances in ASD has focused on children and adolescents. The aim of the current study was to determine the stability and health correlates of self-reported sleep disturbances in adults with ASD.

Methods: Participants included 55 adults with ASD recruited from state-funded Pennsylvania programs (31.2±7.6 years old, 80% male, 10.9% minority). Patient-Reported Outcomes Measurement Information System (PROMIS) measures assessing Sleep Disturbances, Sleep-Related Impairment, Fatigue, Anxiety, Depression, Anger, and Physical Health, were completed at baseline and every 90 ± 14 days over a 2-year period. Intraclass correlation coefficients (ICC) were calculated for each sleep outcome, and interpreted as 0.00–0.20="poor stability," 0.21–0.40="slight stability," 0.41–0.60="moderate stability," 0.61–0.80="substantial stability," and 0.81–1.00="almost perfect stability" across the first three time-points. Linear mixed models examined the independent association of sleep disturbances, sleep-related impairment, and fatigue on anxiety, depression, anger, and physical health over the two-year period.

Results: Sleep-related impairment (ICC=0.73) and fatigue (ICC=0.64) were substantially stable, while sleep disturbances were moderately stable (ICC=0.58). All three sleep-related outcomes were independently associated with anxiety (sleep-related impairment $p=0.012$; sleep disturbance $p<0.001$; fatigue $p<0.001$) and anger (sleep-related impairment $p<0.001$; sleep disturbance $p=0.001$; fatigue $p<0.001$) across the two-year period. Sleep disturbance ($p<0.001$) and fatigue ($p<0.001$), but not sleep-related impairment ($p=0.267$), were associated with depression across the two-year period. In contrast, none of the sleep-related outcomes (sleep-related impairment $p=0.285$; sleep