(p<0.01), across the pandemic, with effects being evident in male and female adolescents.

**Conclusion:** Our findings show profound changes in sleep timing and screen time use across the pandemic in young adolescents, and critically, that excessive screen time negatively impacts sleep. As adolescents increasingly turn to more screen usage, these data highlight the need to promote their balanced and informed use of social media platforms, video games, and other digital technology to ensure adequate opportunity to sleep and maintain other healthy behaviors during this critical period of developmental change. **Support (If Any):** NIH U01DA041022

## 0050

## THE ROLE OF POVERTY AND PERCEIVED STRESS ON INSOMNIA SYMPTOM SEVERITY DURING THE COVID-19 PANDEMIC

*Mara Egeler<sup>1</sup>, Veronica Hire<sup>1</sup>, Jamie Walker<sup>1</sup>, Ivan Vargas<sup>1</sup>* University of Arkansas<sup>1</sup>

**Introduction:** In 2020, poverty in the United States increased as the COVID-19 pandemic led to the loss of work and/or income. Recent research has also shown that stress caused by the pandemic has led to increased rates of poor sleep. While insomnia rates have increased nationwide, it is not yet known if those living in poverty experienced insomnia symptoms at disproportionate rates. This study examined the effect poverty has had on insomnia symptom severity, as well as whether perceived stress mediated this association.

**Methods:** Survey data was collected from 3,775 U.S. adults (83.1% White, 78.6% female, age = 18-86 years old) during the initial months of the COVID-19 pandemic (April-June 2020). These data were used for a secondary analysis. Participants completed an online survey aimed to assess basic demographics, sleep, physical activity, social engagement, and overall stress levels. Poverty was defined using the poverty guidelines provided by the Department of Health and Human Services (i.e., based on self-reported income and family/household size). The Insomnia Severity Index (ISI) was used to assess insomnia symptoms. Perceived stress was assessed using the Perceived Stress Scale (PSS).

**Results:** 316 participants (8.4%) met criteria to be considered living below the poverty threshold. Those below the poverty threshold had a mean ISI of 10.20 (95% CI: 9.54, 10.86), while those above the poverty threshold had a mean ISI of 8.33 (95% CI: 8.13, 8.53). Put differently, 26.6% of those below the poverty threshold met criteria for clinical insomnia (i.e., ISI > 14), whereas 15.9% of those above the poverty threshold met criteria for clinical insomnia. Finally, a mediation test (with bootstrapping) confirmed that the association between poverty and insomnia was partially mediated by perceived stress (indirect effect = 1.15, 95% CI: 0.76, 1.55).

**Conclusion:** While poverty guidelines vary by state, these data generally support that there are notable disparities in sleep and insomnia based on family/household income, and that these differences are, in part, due to greater perceived stress. This may be due to increased stress related to loss of work or income. Future studies examining the impact of pandemic stress on insomnia should consider the role of socio-economic status.

**Support (If Any):** K23HL141581 (PI: Vargas); R25HL10544 (PI: Jean-Louis); K24AG055602 (PI: Perlis)

#### 0051

# THE ROLE OF PERCEIVED CONTROL IN BUFFERING AGAINST POOR SLEEP IN ESSENTIAL WORKERS DURING COVID-19

*Mia Meyer*<sup>1</sup>, Jeremy Hamm<sup>1</sup>, Odalis Garcia<sup>1</sup>, Jaron Tan<sup>1</sup>, Rachel Delaney<sup>1</sup>, Katherine Duggan<sup>1</sup> North Dakota State University <sup>1</sup>

**Introduction:** The COVID-19 pandemic has impacted sleep, with some populations such as essential workers reporting insomnia and poor sleep health. Prior research has suggested (but not tested) that this worsening of sleep may be tied to a lack of control over one's health or safety during the pandemic. This study tests this prediction and examines the role of perceived control as a protective factor against poor sleep in essential workers.

**Methods:** This study uses data from the NDSU National COVID Study, which has followed 301 nationally-representative American adults across four waves of data collection since April 2020. The current analysis includes data from wave 1 (April 2020) in 279 participants who had complete demographic, essential worker, perceived control (including domain general perceived control as well as health, COVID, work-specific control), and sleep health (RU SATED) data. Using t-tests and correlations, we hypothesized: (1) sleep health would be worse in essential workers compared with others; (2) perceived control would relate to better sleep health; and (3) perceived control would be a stronger predictor of sleep health in essential workers relative to others.

**Results:** There were no significant differences in sleep health between essential workers (N=44, M=8.27, SD=2.72) and others (N=235, M=8.46, SD=2.54; t=-0.44, p=.66). In the full sample, all indices of perceived control were significantly related to better sleep health (rs=.17-.31, ps<.004). Associations were stronger in essential workers (N=44, rs=.30-.56, ps<.05) than in others (N=235, rs=.13-. .31, ps<.04). In sensitivity analyses that excluded participants not working for pay (e.g., people who were unemployed, retired, or receiving disability) from the other category, moderation effects were stronger; only COVID-related perceived control was significantly related to sleep health (N=110; r=.24, p=.01) in non-essential workers.

**Conclusion:** This is the first study to demonstrate links between perceived control and sleep. Although sleep health was not significantly different between essential and non-essential workers, we found that perceived control was especially beneficial for essential workers' sleep. Our results suggest interventions to improve perceived control, a modifiable psychosocial resource, might improve sleep health for essential workers.

**Support (If Any):** L30 HL143741 to KAD from NHLBI; Research and Creative Activity Award to KAD and JMH from NDSU.

# 0052

#### A MIXED-METHODS EXAMINATION OF PERCEIVED CHALLENGES DURING THE COVID-19 PANDEMIC: ASSOCIATIONS WITH SLEEP HEALTH AND NIGHTMARES AMONG HEALTHCARE WORKERS

Ronald Franzen<sup>1</sup>, Ramandeep Kahlon<sup>1</sup>, Melissa Jones<sup>1</sup>, Ritwick Agrawal<sup>1</sup>, Earl Crew<sup>1</sup> Baylor College of Medicine<sup>1</sup>

**Introduction:** The emergence of CoVID-19 has created an immense burden on healthcare systems across the world, placing healthcare workers (HCWs) under significant, additional stress while they also confront multiple personal, family and sociopolitical challenges during the pandemic. Many studies have reported the negative impact of pandemic-related stress on sleep of HCWs. Our mixedmethods investigation sought to extend existing research by characterizing the themes of HCWs' primary concerns during the early pandemic and identifying the most salient concerns which might be impacting sleep.

**Methods:** North American HCWs (n = 1331) were surveyed during the "second wave" of CoVID-19 case increases (6/9/2020 - 8/17/2020), which included a questionnaire with measures of sleep health (RU-SATED) and nightmare frequency (PSQI). Additionally, each HCW was asked to openly-describe their most salient concern with regard to the pandemic. Each response was categorized by topic. T-tests were conducted to compare frequencies of each response category with sleep health and nightmare frequency.

Results: The study sample comprised 1331 HCWs (91.7% female; 74.5% non-Hispanic white; 64.31% with exposure to CoVID-19 patients; 85.1% working in-person). Primary concerns were grouped into 8 categories including combinations of personal/familiallevel concerns (e.g. concern about CoVID-19 infection/spread), and work-related stressors (e.g. increased workload). Concerns about lack of PPE/equipment was significantly associated with lower scores on RU-SATED (t = -2.69; p = .007) and increased nightmare frequency (t = 2.70; p = .007). Additionally, concerns about increased workload were significantly associated with lower scores on both RU-SATED (t = -2.79; p = .005) and increased nightmare frequency (t = 5.24; p = .000). Individually, primary concerns for CoVID-19 infection/spread was significantly associated with more-frequent nightmares (t = 2.01; p = .045). Neither sleep measure was associated with categories involving societallevel concerns (e.g. sociopolitical concerns) among the sample.

**Conclusion:** Our results indicate that the HCWs most concerned about workplace stressors during the pandemic indicated poorer sleep health and more frequent nightmares. Further analyses could help guide proper stratification of therapeutic approaches to improve sleep health and related distress for HCWs. **Support (If Any):** 

# 0053

# THE ROLE OF SOCIAL ISOLATION ON SLEEP PROBLEMS INTERFERING WITH DAILY FUNCTIONING

*Camryn Wellman<sup>1</sup>, Samantha Jankowski<sup>1</sup>, Michael Grandner<sup>1</sup>, Deva Reign<sup>1</sup>, Natalie Dailey<sup>1</sup>, William Killgore<sup>1</sup>* University of Arizona<sup>1</sup>

**Introduction:** Amidst the COVID-19 pandemic, widespread feelings of social isolation have become more prevalent than ever before as lockdowns and social distancing measures led people to remain in their homes. The constructs of social isolation and loneliness are similar but reflect slightly different aspects of social experience. Social isolation reflects the amount of social contact a person experiences, whereas loneliness reflects the subjective experience of an emotional yearning for such contact. While is known that sleep problems have increased during the pandemic, there has been little research into the potential effects of social isolation on sleep problems. Here, we examined the influence of social isolation on the extent to which insomnia has interfered with daily life activities. We hypothesized that social isolation would contribute to greater disruption in daily functioning from insomnia, exclusive of the effects of loneliness.

Methods: 13,298 English-speaking adults from across the U.S. (18-92 years old; 57.5% female) completed an online battery of

assessments that included demographic questions, the Insomnia Severity Index (ISI), and the UCLA Loneliness Scale – Version 3 between April 2020 and April 2021. Participants were grouped based on whether they felt "socially isolated" or not at the time of assessment. Social isolation groups were compared for the extent that insomnia interfered with daily functioning, while statistically controlling for loneliness.

**Results:** After controlling for loneliness, socially isolated individuals reported much greater daily interference from sleep problems, M=1.58, SD=1.19, compared to those who denied feeling socially isolated, M=0.96, SD=1.04, F(1,13295)=287.67, p=7.5x10-64.

**Conclusion:** Social isolation during the pandemic was associated with significantly greater disruption of daily functioning due to sleep-related issues, even after adjusting for self-reported loneliness. Thus, feeling isolated and lacking social contact was related to functional degradation due to sleep problems. Prior evidence suggests that social isolation can have a dramatic negative impact on mental health and can lead to increased all-cause mortality, but these results suggest social isolation may also impact sleep health and functional outcomes (whether that be physical, cognitive, or psychological). Thus, being isolated during the pandemic was associated with greater degradation of functional outcomes of sleep, regardless of subjective loneliness. **Support (If Any):** 

# 0054

### A FEAR OF DYING: HOW AN OBSESSION WITH DEATH DURING THE PANDEMIC CONTRIBUTES TO MORE SEVERE INSOMNIA

Samantha Samantha Jankowski<sup>1</sup>, Camryn Camryn Wellman<sup>2</sup>, Deva Reign<sup>2</sup>, Michael Grandner<sup>2</sup>, Natalie Dailey<sup>2</sup>, William Killgore<sup>2</sup> University of Ariaz<sup>1</sup> University of Arizona<sup>2</sup>

**Introduction:** The prevalence of insomnia and other sleep disorders increased during the COVID-19 pandemic. While general anxiety, which increased during the pandemic, may account for some of the rise in sleep complaints, other factors may also contribute to insomnia. Here, we examined the potential contribution of fear of dying from the novel coronavirus on the severity of insomnia. We hypothesized that those endorsing a high fear of dying specifically from COVID-19 within 12 months of their assessment would demonstrate more severe insomnia.

**Methods:** From April 2020 through October 2021, 13,298 U.S. participants (18-92 years old; 57.5% female) completed a online survey (~1,000 participants per month) that included an assessment of their perceived likelihood of dying from COVID in the next year, the Generalized Anxiety Disorder scale-7 (GAD-7), and the Insomnia Severity Index (ISI). We examined insomnia over the course of the first year of the pandemic and divided the sample into those who endorsed at least a 50% or greater perceived likelihood that they would die from COVID-19 in the next year versus those who endorsed a less than 50% perceived likelihood of dying from the illness.

**Results:** Fear of dying (50% chance or higher) was associated with higher ISI scores (p<.00001) and tended to decline over the course of the year (p<.00001). A significant month x fear interaction (p=.021) suggested that individuals who believed they would die within the year showed significantly fluctuations in insomnia over the course of 13 months with peaks around June and October 2020. Even accounting for