

COVID-19 Experiences and Financial Stress Predict Insomnia Symptoms and Sleep Duration among Emerging Adults



Authors: Danielle Greene, Zoe Genden, and Yalissa Rodriguez
Faculty/Research supervisors: Royette T. Dubar, Ph.D., Nicole K. Watkins, Ph.D.

Sleep & Psychosocial Adjustment Lab

WESLEYAN
UNIVERSITY

Introduction

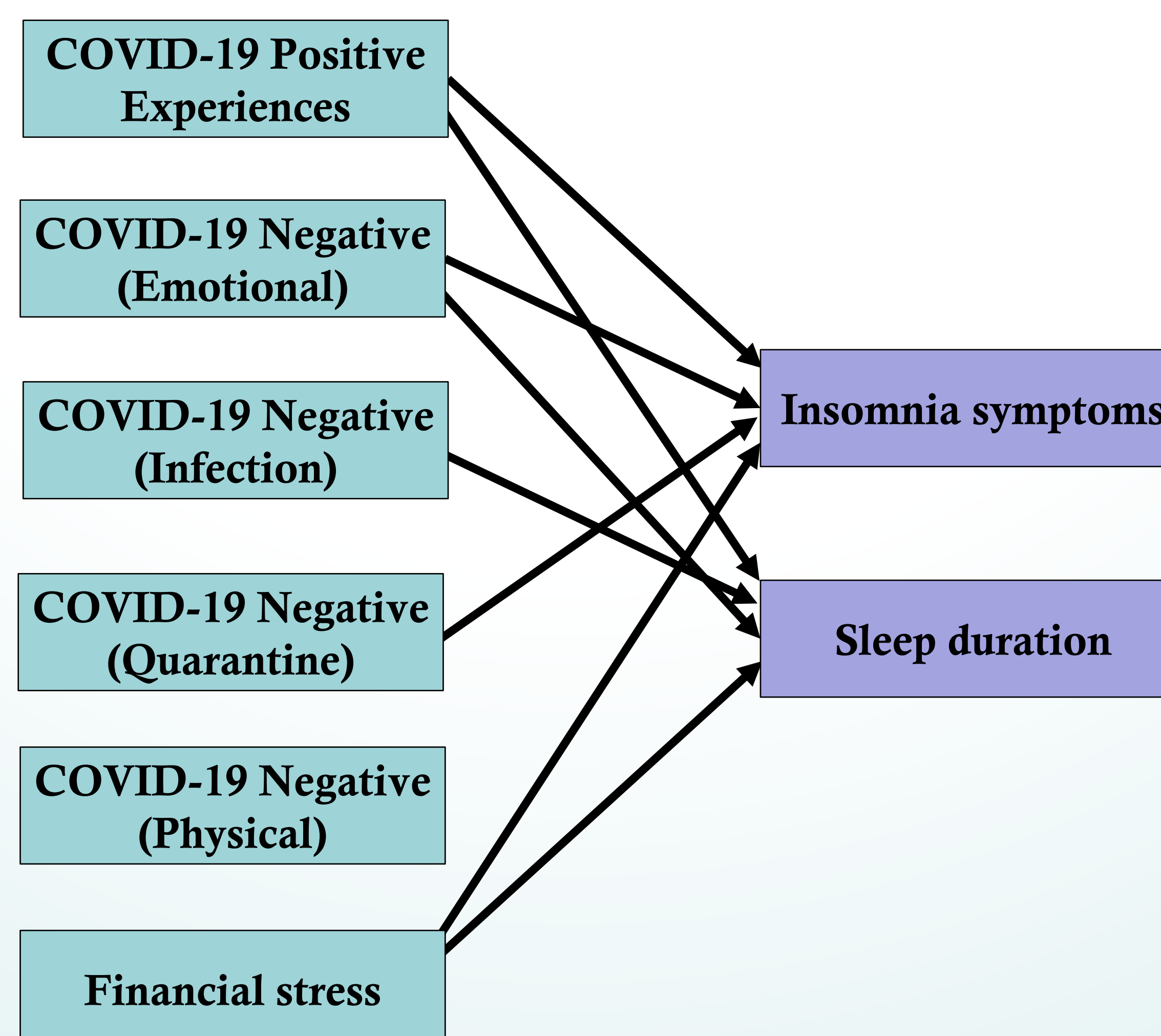
Financial strain has been positively correlated with poor sleep quality among adults. For some individuals, the COVID-19 pandemic has negatively impacted sleep patterns: later bedtimes, longer sleep onset latency, shorter sleep duration, increased daytime napping, increased insomnia symptoms, and more daytime fatigue (Gupta et al., 2020; Partinen, 2020). These studies, however, have failed to examine how both COVID-19 experiences and financial stress relate to insomnia symptoms and sleep duration among university samples. To address this gap, the present correlational study examined concurrent associations between several COVID-19 experiences (both positive and negative), financial stress, and two sleep characteristics (insomnia symptoms and sleep duration) among emerging adults at university.

Method

- **N** = 619 emerging adults enrolled at a U.S. college/university
 - 65.4% Female, 59.5% Non-Hispanic White, 75.4% Heterosexual, 90.3% in shared living arrangements, 12.6% First generation status
- **Covariates:** Gender, race-ethnicity, sexuality, living arrangement, first generation status
- **COVID-19 negative experiences:** 19 items from the Epidemic-Pandemic Impacts Inventory (EPII; Grasso et al., 2020) across 4 subscales: emotional, physical, infection, and quarantine; E.g., “Increase in mental health problems or symptoms”.
- **COVID-19 positive experiences:** 10 items from the positive experiences subscale of the EPII (e.g., “More appreciative of things usually taken for granted”).
- **Insomnia symptoms:** 7-item Insomnia Severity Index (Morin, 2001) (e.g., “Difficulty falling asleep”).
- **Sleep duration:** “During the week [weekend] how many actual hours of sleep do you think you typically get per night?”
- **Financial Stress:** 9 items from the Financial Stress Scale for Undergraduate Students (e.g., “Having to borrow money from family/friends”).

Results

- Higher **positive** COVID-19 experiences predicted decreased insomnia symptoms ($\beta = -.165$, $SE = .097$, $p < .001$) and longer sleep duration ($\beta = .081$, $SE = .023$, $p = .039$).
- Higher **negative** COVID-19 experiences within the domain of Emotional ($\beta = .355$, $SE = .103$, $p < .001$), and Quarantine ($\beta = .120$, $SE = .164$, $p = .002$) predicted increased insomnia symptoms.
- Higher **negative** COVID-19 experiences within the domains of Emotional ($\beta = .355$, $SE = .104$, $p = .034$) and Infection ($\beta = -.106$, $SE = .047$, $p = .012$) predicted shorter sleep duration.
- Higher **financial stress** predicted increased insomnia symptoms ($\beta = .224$, $SE = .351$, $p < .001$) and shorter sleep duration ($\beta = -.136$, $SE = .085$, $p < .001$).



Discussion

- Emerging adults who reported experiencing greater positive implications of the COVID-19 pandemic had better sleep (i.e., fewer insomnia symptoms and longer sleep duration) possibly due to greater availability of social (e.g., supportive parents) and psychological (e.g., resilience) resources.
- The negative impacts of COVID-19 and financial stress on poor sleep among university students may be due to the concurrent challenges of online learning within the context of limited financial resources.
- Limited financial resources may put emerging adults at a greater risk to experience more negative implications of the pandemic, as they may have to find employment and share limited living spaces with others.
- Further research should assess discrepancies in student’s academic stress and motivation during COVID-19 as a function of socio-demographic factors such as sex, first-generation low-income status, and sexual orientation minority.
- The current study adds to our knowledge on both positive and negative perceived implications of the pandemic in relation to an important biobehavioral variable – sleep – which has important implications for both physical and mental well-being

References

- Campbell, R., Vansteenkiste, M., Delesie, L. M., Mariman, A. N., Soenens, B., Tobbac, E., ... Vogelaers, D. P. (2015). Examining the role of psychological need satisfaction in sleep: A Self-Determination Theory perspective. *Personality and Individual Differences, 77*, 199–204. <https://doi.org/10.1016/j.paid.2015.01.003>
- Krishnan, V., Gupta, R., Grover, S., Basu, A., Tripathi, A., Subramanyam, A., ... Avasthi, A. (2020). Changes in sleep pattern and sleep quality during COVID-19 lockdown. *Indian Journal of Psychiatry, 62*(4), 370. <https://doi.org/10.4103/psychiatry.indianjpsychiatry.523.20>
- Partinen, M., Bjorvatn, B., Holzinger, B., Chung, F., Penzel, T., Espie, C. A., & Morin, C. M. (2020). Sleep and circadian problems during the coronavirus disease 2019 (COVID-19) pandemic: the International COVID-19 Sleep Study (ICOSS). *Journal of Sleep Research, 30*(1). <https://doi.org/10.1111/jsr.13206>