

# Impact of the COVID-19 pandemic on change in sleep patterns in an exploratory, cross-sectional online sample of 79 countries

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Authors: Megan E. Petrov, Keenan Pituch, Kimiya Kasraeian, Nana Jiao, Jennifer Mattingly, Kristina Hasanaj, Shawn Youngstedt, Matthew Buman, Dana Epstein

## How has the pandemic changed **sleep patterns**?

**991** people surveyed **worldwide** found...



**56%**

reported symptoms of **insomnia**

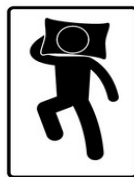
**65%**

reported symptoms of **depression**



...**AND** most people fell into 4 main sleep pattern profiles.

## 4 Sleep Pattern Profiles



### DELAYED SLEEP

- ◇ Later bedtime
- ◇ Reduced sleep quality
- ◇ Increased nightmares and naps
- ...total time spent in bed and total sleep time did **not** change

### SLEEP LOST AND FRAGMENTED

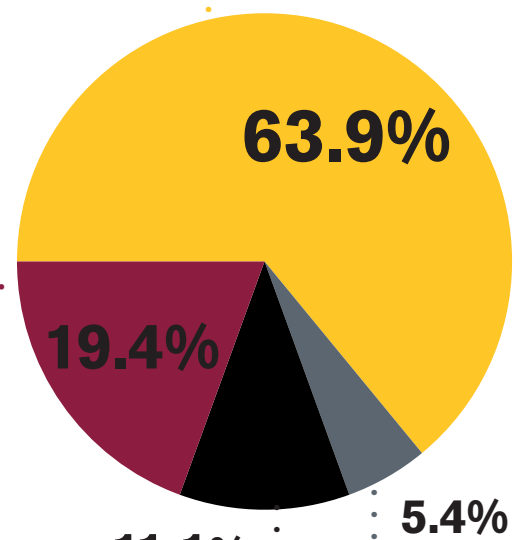
- ◇ Reduced sleep quality
- ◇ Reduced time in bed and total sleep time
- ◇ Little napping to make up for sleep loss
- ...more **women** than men in this group

### SLEEP OPPORTUNISTS

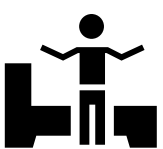
- ◇ Increased time in bed and total sleep time
- ◇ Increased family stress and discord
- ◇ Few nightmares and little insomnia
- ◇ Less likely to be employed
- ...this group reported **greatest** change in daily routines

### DYSREGULATED AND DISTRESSED

- ◇ Reduced total time in bed, total sleep time, and sleep quality
- ◇ Increased nightmares and naps
- ◇ Symptoms of severe insomnia
- ...this group reported **greatest** change in family income and/or employment



## Take Homes



Poor **sleep** and **depressive** symptoms were widespread and increased during the pandemic.



**Women** were more affected than men.



**Sleep and mental health issues** during the pandemic may be long lasting and contribute to poor long-term health outcomes.



**Results** may help identify at-risk groups in need of interventions.



**Potential** for personalized behavioral sleep health interventions based upon individual sleep profiles.