

Threatening Experience Effect on Sleep and Emotion Regulation

Introduction

Emotion regulation is the process by which people manage how they experience feelings, both positive and negative, and respond behaviorally

The ability to effectively regulate emotion is critical to adaptive functioning and overall wellbeing

There are only a few studies to our knowledge that examine the relationship between threatening or stressful life events and emotion regulation¹

Evidence suggests that threatening or stressful life experiences, including COVID-19 stress, interferes with healthy sleep²

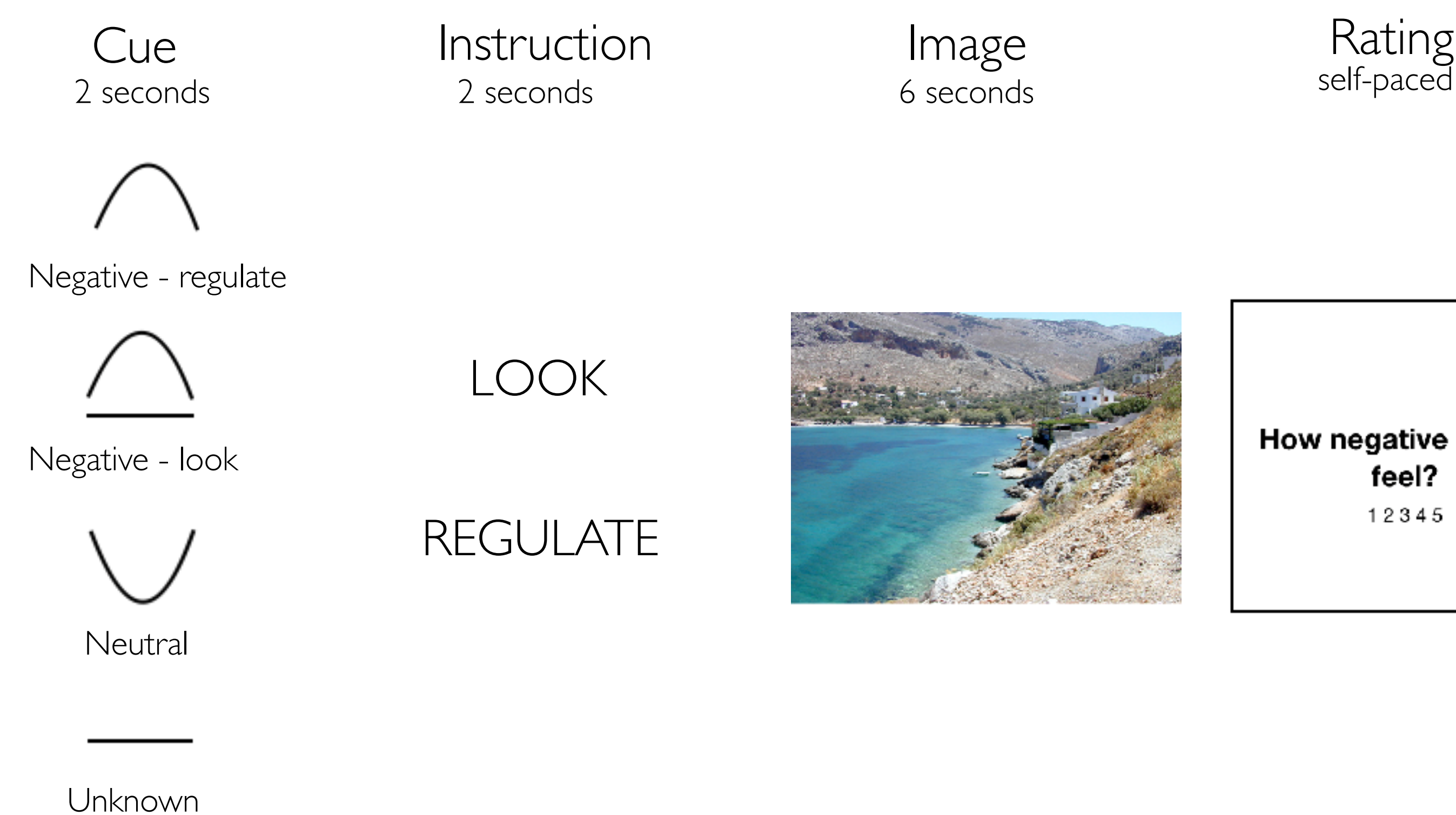
The proposed study will examine how sleep moderates emotion regulation success in participants who have experienced a personal stressful event in the midst of the global pandemic

Methods

Participants: N = 259 adults who recently experienced a stressful event (mean age 30 years) were recruited online through Prolific and surveyed 10 times over a 4-week period

Emotion Regulation Task

Known Images (60) Unknown Images (20)



Methods

Threatening Event List

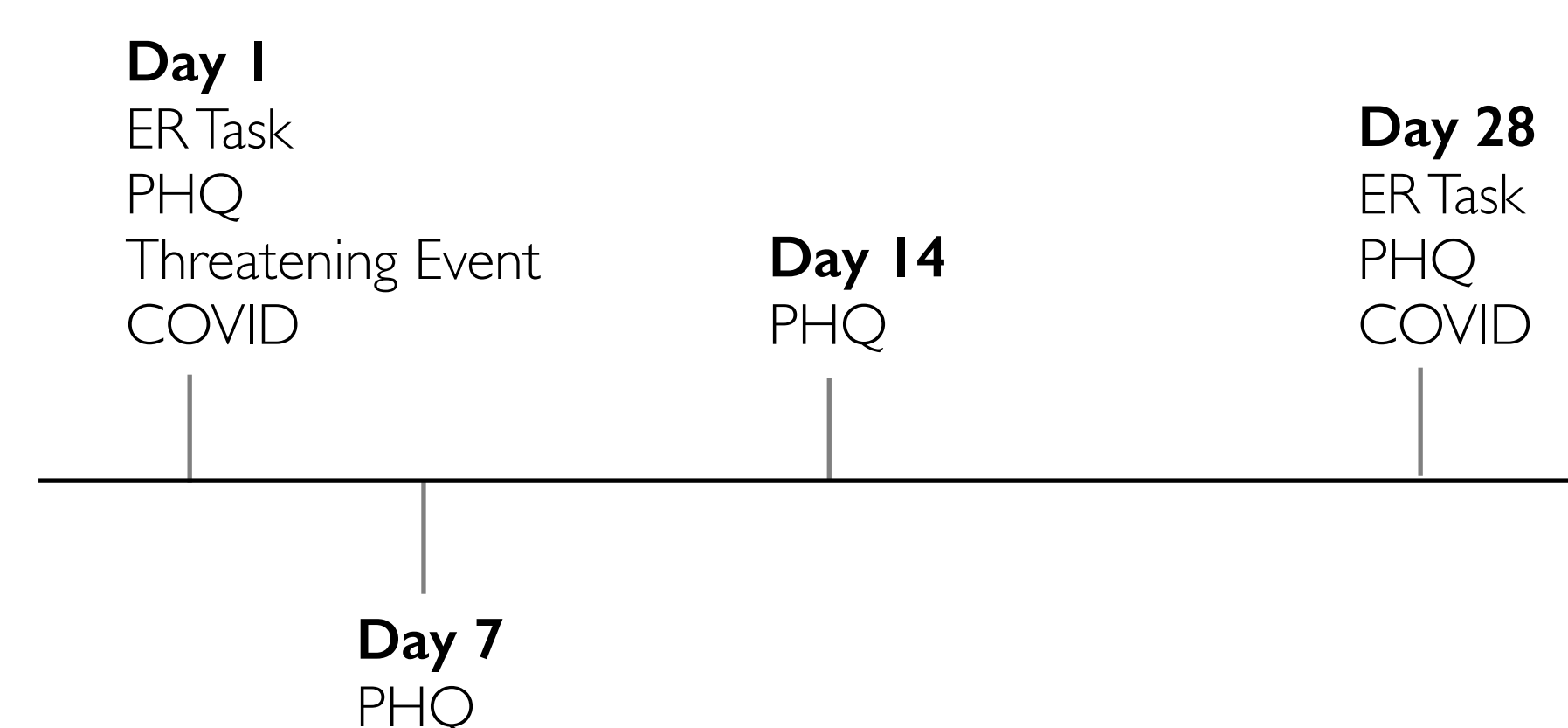
- Day 1
- Self-reported threatening events within the past 14 days
- Death of close other, illness, financial crisis, job loss

Physical Health Questionnaire

- Day 1, Week 2, Week 3, Week 4
- 4 self-reported survey questions about quality of sleep

COVID-19 Questionnaire

- Day 1, Week 4
- 9 self-reported survey questions about perceived threat of COVID-19



Analysis

The mediation model will test our prediction that threatening events impact participant's emotion regulation task performance.

Sleep will be tested as a mediator between threatening experience and emotion regulation.

Emotion regulation success will be measured by the difference in reported affect on Look vs. Regulate negative trials; emotion regulation success is indicated by a greater decrease in negative affect in the trials³.

We will employ linear and nonlinear regressions to test whether threatening experiences are associated with and regulation, and if sleep patterns moderate this relationship.

Discussion

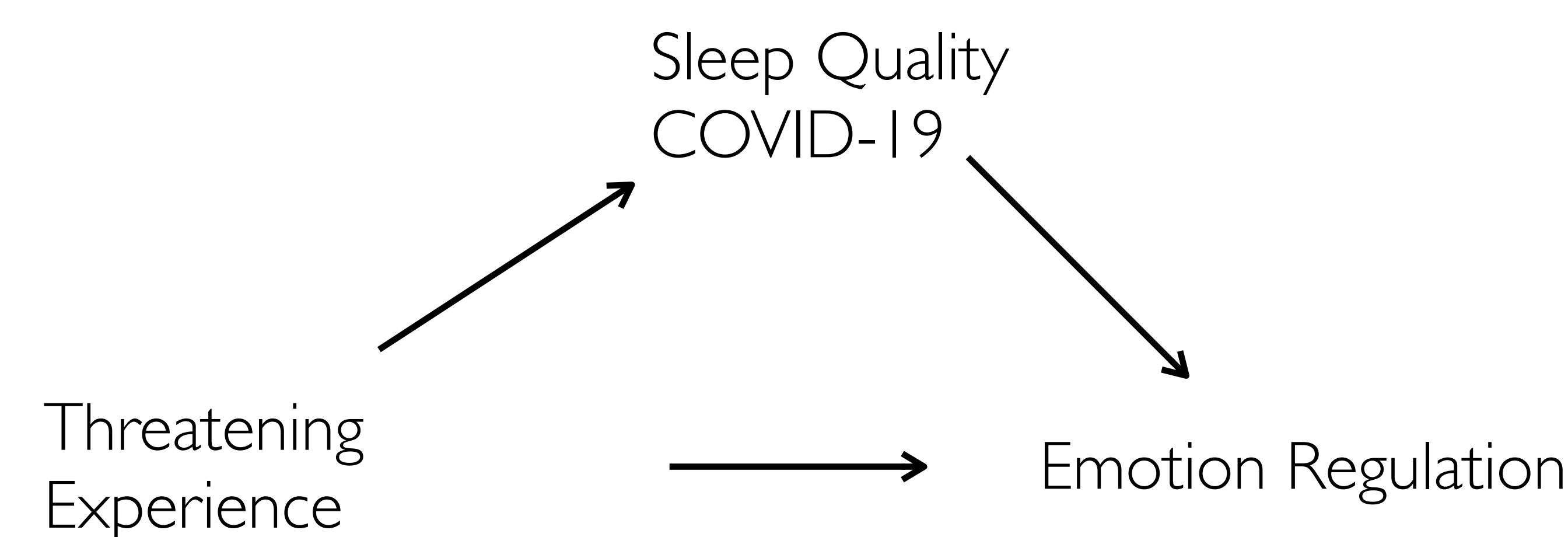
This study will contribute to knowledge about the effects of the pandemic on stress and cognitive functioning, and further understanding of the importance of healthy sleep as a way of coping with stress.

Evidence linking sleep and behavior, especially during this unprecedented time, may help raise awareness of the importance of sleep to cognitive functioning and motivate people to prioritize healthy sleep behaviors.

Future research can be done with more data on the impact that COVID-19 has on stress and a more controlled experiment on sleep behavior.

Hypothesis

Participants who experience threatening events will be less able to effectively regulate emotions



Sleep deprivation will play a mediating role, such that participants who are experiencing stress and lack of sleep will be less able to regulate emotions

COVID-19 will also play a mediating role, such that participants who feel threatened by COVID-19 will be less able to regulate emotions

References

1. Ng, Z. J., Huebner, E. S., Hills, K. J., & Valois, R. F. (2018). Mediating effects of emotion regulation strategies in the relations between stressful life events and life satisfaction in a longitudinal sample of early adolescents. *Journal of School Psychology, 70*, 16-26.
2. Cartwright, R. D., & Wood, E. (1991). Adjustment disorders of sleep: The sleep effects of a major stressful event and its resolution. *Psychiatry Research, 39*(3), 199-209.
3. Herwig, U., Baumgartner, T., Kaffenberger, T., Brühl, A., Kottlow, M., Schreier-Gasser, U., & Rufer, M. (2007). Modulation of anticipatory emotion and perception processing by cognitive control. *Neuroimage, 37*(2), 652-662.