# Stress, Immunity, and Emotion Regulation in Aging Study



**Summer 2023 Newsletter** 

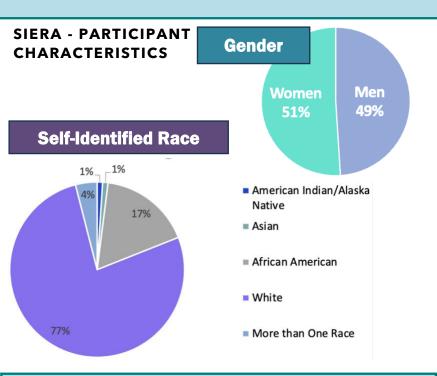


We have officially completed data collection for the Stress, Immunity, and Emotion Regulation in Aging (SIERA) Study - thank you for your participation in the study! Keep reading to learn about study and team updates and next steps.

#### What this newsletter includes:

- 1. Study Updates
- 2. Continued Participation Opportunity
- 3. Lab Member Spotlights
- Evidence-Based Tips to Improve your Stress Response

#### 1. UPDATES FROM THE SIERA STUDY



#### 2. IMPORTANT ANNOUNCEMENT

In the coming months, we will be contacting all past SIERA participants to invite you to participate in a short add-on study, which would involve answering additional questionnaires and an optional blood spot - all completed at home (no travel needed). We're conducting this study to gain more information about how experiences across your whole lifespan, not just in the previous 6 months to 1 year, may also affect healthy aging. We hope you will consider participating!

### SIERA - DAILY EXPERIENCES: STRESS AND HEALTH BEHAVIORS

#### **STRESS**

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On average, our participants reported 2-3 stressors or daily hassles per day; most commonly, participants

reported that something had been on their mind that was stressful or that something happened at home that turned out to be stressful.

#### **SLEEP**



On average, our participants reported their nightly sleep quality as "very good" to "fairly good".

#### **HEALTH**



On average, our participants rated their daily health as "excellent" to "good".

#### **EXERCISE**



On average, participants reported daily exercise of about 65 minutes at low to medium intensity.

## 3. Lab Member Spotlights

Research Assistant **Maegan Nation** will be leaving the University of Pittsburgh and starting as a Clinical Psychology Ph.D. student at the University of Nevada, Las Vegas (UNLV). Congratulations Maegan on this exciting next step in your career!



Many of our undergraduate research assistants graduated in April 2023 and are now involved in full-time research positions at the



University of Pittsburgh and the National Institutes of Health. Other graduates are beginning graduate school in various fields including psychology, public health, medicine, and social work.



Congratulations to graduate student **Abby Hillmann**, who successfully defended her master's thesis on social network composition and inflammation. She is currently analyzing data to test whether the number of or timing of stressful life events are associated with inflammation.

# 4. Evidence-Based Ways to Improve your Stress Response

One of the goals of the SIERA study is to determine whether emotion regulation strategies can reduce the impact of stress on our physiology. Specifically, we are examining the effects of emotion regulation on salivary cortisol levels, which are known to be higher under stressful conditions, and can lead to negative health outcomes if high levels are sustained over long periods of time. Aside from effective emotion regulation, researchers have identified other factors that may improve your physiological response to stress. Check out some of these findings (see right)!

#### **Exercise**

The CDC recommends an average of 75 minutes of vigorous physical activity per week. Reporting regular exercise that meets CDC criteria and higher fitness levels are associated with lower cortisol responses to stressful tasks. (Puterman et al., 2011; Mücke et al., 2018).

### Positive relationships

Having positive social relationships and receiving social support can be protective in stressful situations (Cohen & Willis, 1985). One study reported that having a close and intimate partner relationship buffered the effects of work stress on cortisol levels (Ditzen et al., 2008).

#### Volunteering

Prosocial behavior such as volunteering or providing social support has been linked to health benefits. A recent study reported that cortisol responses to stressful events were lower on days when participants volunteered (Han et al., 2018).

#### Pet Ownership

Social support doesn't always have to come from humans! Innovative studies have even linked the presence of canine companions to lower cortisol levels during stressor tasks. In general, pet ownership is associated with less loneliness and is also linked to lower blood pressure and mortality rates (Polheber & Matchock, 2014).