Assessing the Effectiveness of Mindfulness Training in Oswego Undergraduate Students: Preliminary Results

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Background

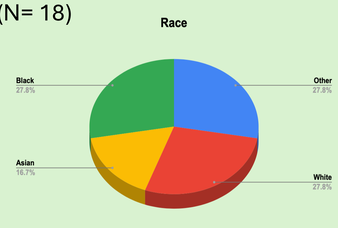
- Mindfulness-based programs help college students improve their overall health, including reducing perceived stress, loneliness, alcohol consumption, body mass index, physical activity, diet, and sleep duration (Loucks et al., 2021).
- Mindfulness-based interventions have been shown to improve self-compassion, which can be a potential buffer that can protect individuals dealing with daily stress and support them in achieving greater emotional well-being (Bluth et al., 2015).
- Mindfulness practices have been shown to decrease cortisol secretion significantly in various populations including college-aged adults, older adults, medical students, cancer patients, and veterans with PTSD (Zimmaro et al., 2016).

Hypothesis

We expect that participants' mindfulness and self-compassion will increase, and their perceived stress will decrease more in the intervention group than in the control group.

Sample

- Preliminary analysis of 18 participants (N= 18)
  - Data collection ongoing
- Intervention: N = 8
- Control: N= 10
- Suny Oswego undergraduates' student recruited via promotional flyers
- Mean age: 20.38
  - Age Range: 18 to 24
- Gender: 12 females, 4 males, 2 others

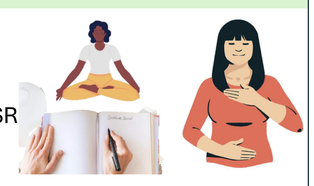


Methods

- **Before Intervention** (Beginning of semester 1)
  - Collect biological measures of stress (cortisol and DNA markers related to cortisol production).
  - Complete the following surveys: mindfulness attention and awareness scale (MAAS), Self-compassion scale (SCS), and perceived stress scale (PSS).
- **After Intervention** (End of semester 1)
  - Collect biological and survey-based measures
- **Follow-up** (Beginning of semester 2)
  - Collect biological and survey-based measures

Intervention

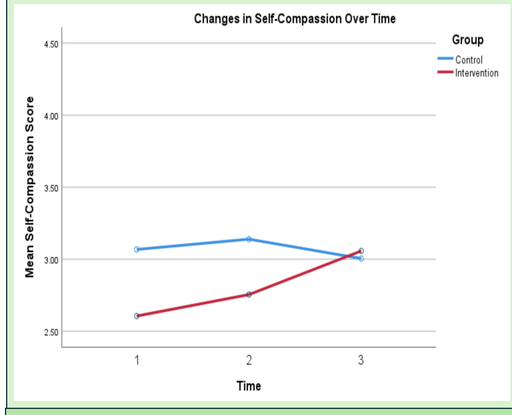
- Six 45-60-minute sessions
- **Mindfulness-Based Stress Reduction** (MBSR
- Mindfulness Techniques:
- Mindful breathing, mindful eating, gratitude practice, body scan, thought stopping, etc.
- Weekly Mindfulness Homework

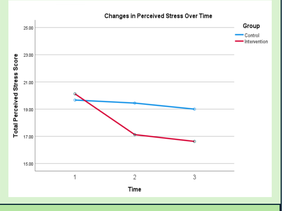


- **Mindfulness Attention and Awareness Scale (MAAS)**
  - Assessing core characteristics of mindfulness
  - 15-item scale, ranging from 1 (almost always) to 6 (almost never)
  - **Scoring**: Mean
    - EX: *"I snack without being aware that I'm eating "*
- **Self-Compassion Scale (SCS)**
  - Assessing how participants act towards themselves in difficult times
  - 26-item scale, ranging from 1 (almost never) to 5 (almost always)
  - **Scoring**: Mean
- **Perceived Stress Scale (PSS)**
  - Assessing how often an individual feels stressed in the last month
  - 10-item scale, ranging from 0 (never) to 4 (very often)
  - **Scoring**: Totaling

Results and Discussion

- Three 2x3 repeated measures ANOVA was conducted to measure the effects of group status (control vs. intervention) and time (pre- and post-intervention and follow-up) on mindfulness, self-compassion, and perceived stress.
- **Significant effect on self-compassion**; $F(1, 15) = 320.468$, $p < .001$
  - Intervention demonstrated noticeable improvement as the study progressed.
- A trend was observed in perceived stress as they decreased over time, suggesting a potential reduction in stress as participants progressed through the study.





Future Directions

- Incorporate the analysis for the biological measures (e.g., hair, nails and saliva)
- Analyze the data of the students who are currently participating in the study (N = 38)