Introduction

- College and graduate school are periods in life often filled with challenges and transitions.
- Multi-component psychosocial approaches to stress management and student wellness are likely to offer the greatest benefit, while individual responses to these approaches are expected to differ.
- This study aims to evaluate subjective well-being and stress physiology before and after completion of a stress-management and wellness workshop. *Only baseline data analyzed thus far*

Methods

Design:
- Randomization to workshop group (YES+ or WOW!), see below
- Lab visit measures: EKG, respiratory belts, Visual Analog Scale (VAS) subjective ratings of ‘pain/discomfort’ and ‘distress’ separately, hand surface temperature via handheld infrared thermometer, salivary cortisol in response to stress induction; collection of questionnaires

Participants (N = 35 for current analyses):
- Age 20.6 ± 2.5 years (range 18-29), 71.2% female
- Inclusion criteria: student (undergrad, grad, etc.); age 18-35
- Exclusion criteria: current psychotropic medication; history of panic disorder; psychosis, or mania; current substance dependence

Workshop Descriptions

*Your Enlightened Side (plus more)* [YES+] workshop
- 4 consecutive days, 18 hrs total
  - Thursday & Friday 6:00-9:30pm, Saturday & Sunday 10am-3:30pm
- Certified instructor w/ 1,000+ hours prior experience
- Focuses on breathing technique called Sudarshan Kriya
- Includes meditation, yoga, and interpersonal practices that encourage social connectedness

*Wisdom On Wellness* [WOW!] workshop
- Same time scheduling as YES+
- Focuses on physiological and cognitive components of stress
- Includes activities related to cognitive reappraisal, thought-tracking, etc.
- Group discussions similar to YES+
- No physical activities or contemplative practices taught in YES+

Maastricht Acute Stress Test (MAST)
- Combines aspects of both cold pressor test (CPT) and Trier Social Stress Test (TSST)
- Social-evaluative context (Researchers w/ white lab coats, video-recorded “for coding purposes,” performance comparison, neutral or negative feedback, etc.)

Inclusion criteria:
- Undergraduates (age 18-29), 71.2% female
- Single
- No recent physical activity
- No recent PET scans or alcohol
- EKG, respiratory belts, Visual Analog Scale (VAS) subjective ratings of ‘pain/discomfort’ and ‘distress’

**Rating of anticipated math-related stress**

\[ R^2 = 0.2569 \]

BSL-corrected Math HR (%)

**Rating of unexpected math-related stress**

\[ R^2 = 0.1435 \]

BSL-corrected Math HR (%)

Discussion/Next Steps

- These preliminary results from baseline data of this RCT suggest that the MAST yields robust, stress-related effects on a variety of heart rate metrics, offering a valuable platform to evaluate intervention-related changes in stress physiology.
- EKG processing and analysis, including HRV metrics and rate-to-recovery slopes both within MAST (below, B) as well as across post-MAST recovery
- Detailed examination of immediate and long-term outcomes in response to each intervention

A. Example analysis from stationary bicycle challenge (Goldstein et al., Int J Yoga, 2016)
B. BFI scores from representative participant in current study: black circle indicates MAST portion of the lab visit (drops in BFI correspond to subtraction task)

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