

## 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

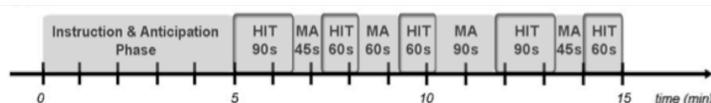
- 4 consecutive days, 18 hrs total
  - Thursday & Friday 6:00-9:30pm, Saturday & Sunday 10am-3:30pm
- Certified instructor w/ 1,000+ hours prior experience
- Focuses on breathing technique called Sudarshan Kriya
- Includes meditation, yoga, and interpersonal practices that encourage social connectedness

#### "Wisdom On Wellness" [WOW!] workshop

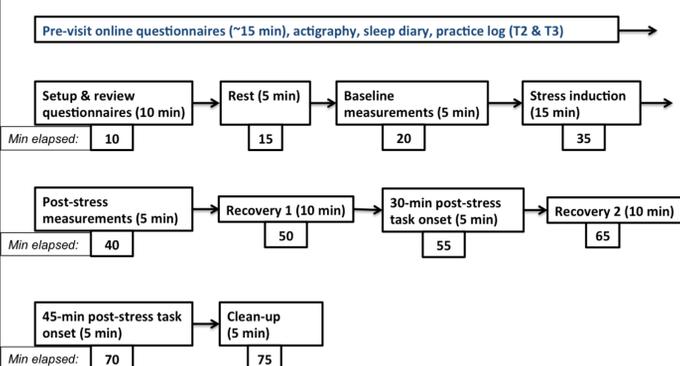
- Same time scheduling as YES+
- Focuses on physiological and cognitive components of stress
- Includes activities related to cognitive reappraisal, thought-tracking, etc.
- Group discussions similar to YES+
  - Though only large-group format without partner interaction
- No physical activities or contemplative 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.)
- Following instructions, participants are guided by Powerpoint presentation to alternate between hand immersion trial (HIT) into an ice bucket and mental arithmetic (MA) task
  - HIT: up to 90sec (free to remove early), 2°C
  - MA: count backwards by 17 starting at random number between 2016 and 2089

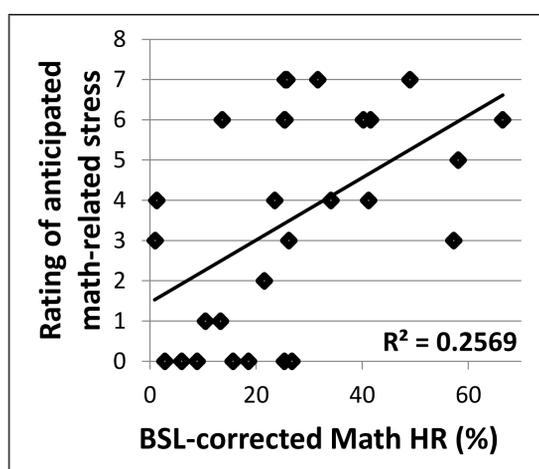
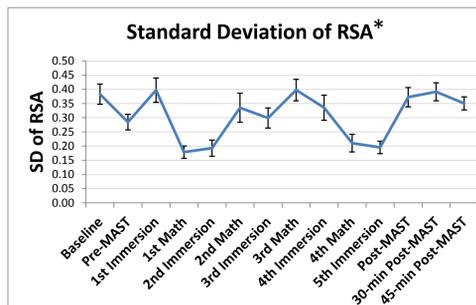
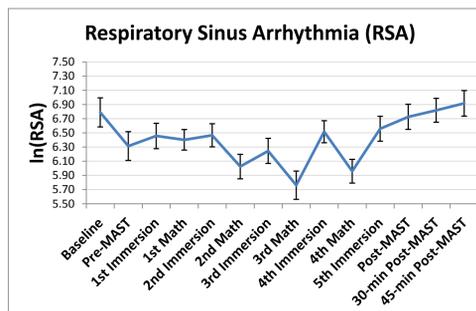
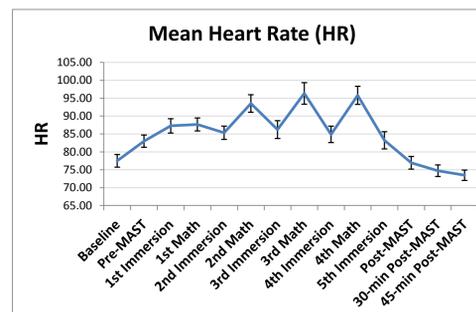
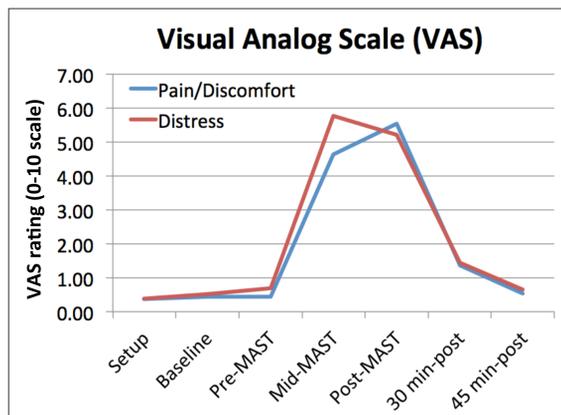


### Laboratory visit overview

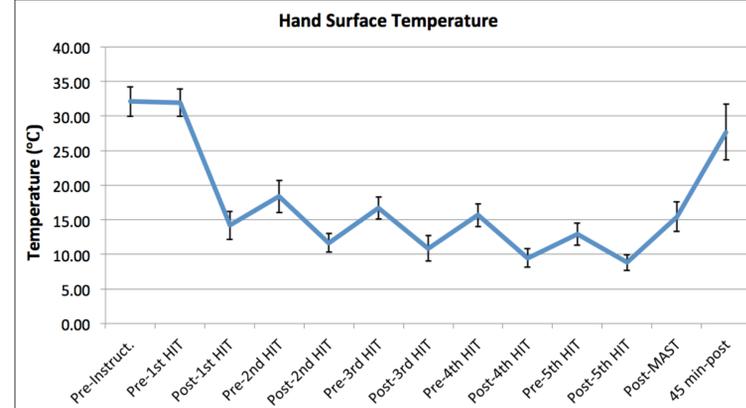
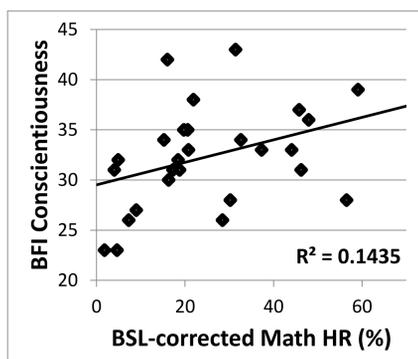


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## Results (baseline only)

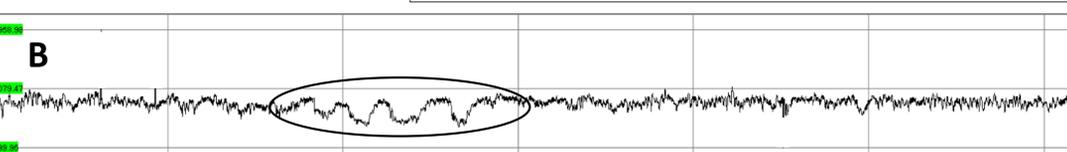
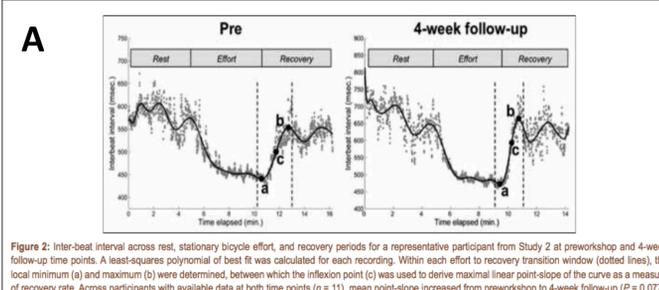


\*Within-subject variance across 24-second windows averaged for each recording block



## 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



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