

The effects of mindfulness meditation on stress and coping in college students.

Ellen A. Gott, Makenzie Ellsworth, Kelley Fitzpatrick, Jacob Mamer & Meredith Minear



ABSTRACT

We tested whether a short 6-week mindfulness meditation course would affect levels of stress, anxiety, positive and negative affect, trait mindfulness, coping and hope in undergraduates. We found greater decreases in stress in students participating in a mindfulness meditation group than in a yoga control group.

INTRODUCTION

- Mindfulness is a state of consciousness where one pays acute attention to one's thoughts and sensations in a non-judgmental fashion.
- Trait mindfulness refers to preexisting individual differences in levels of mindfulness (Arch & Craske, 2010).
- The clear majority of mindfulness research has focused on state mindfulness with findings including decreased stress and increased positive personality factors (Oman et. al., 2008).
- We were interested in assessing whether mindfulness meditation would decrease stress and increase trait mindfulness as compared to a yoga control group.

METHODS

Objectives:

- To examine the effects of a 6-week mindfulness meditation course on trait mindfulness, stress, anxiety, positive and negative affect, coping and hope.

Participants:

- 28 undergraduates (57% female) participated in a 6-week mindfulness meditation course and 28 undergraduates (86% female) participated in a 6-week yoga control group. All completed pre- and post-test measures.

Surveys:

- Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983).
- Mindfulness Attention Awareness Scale (Brown & Ryan, 2003)
- Adult Hope Scale (Snyder et. al., 1991).

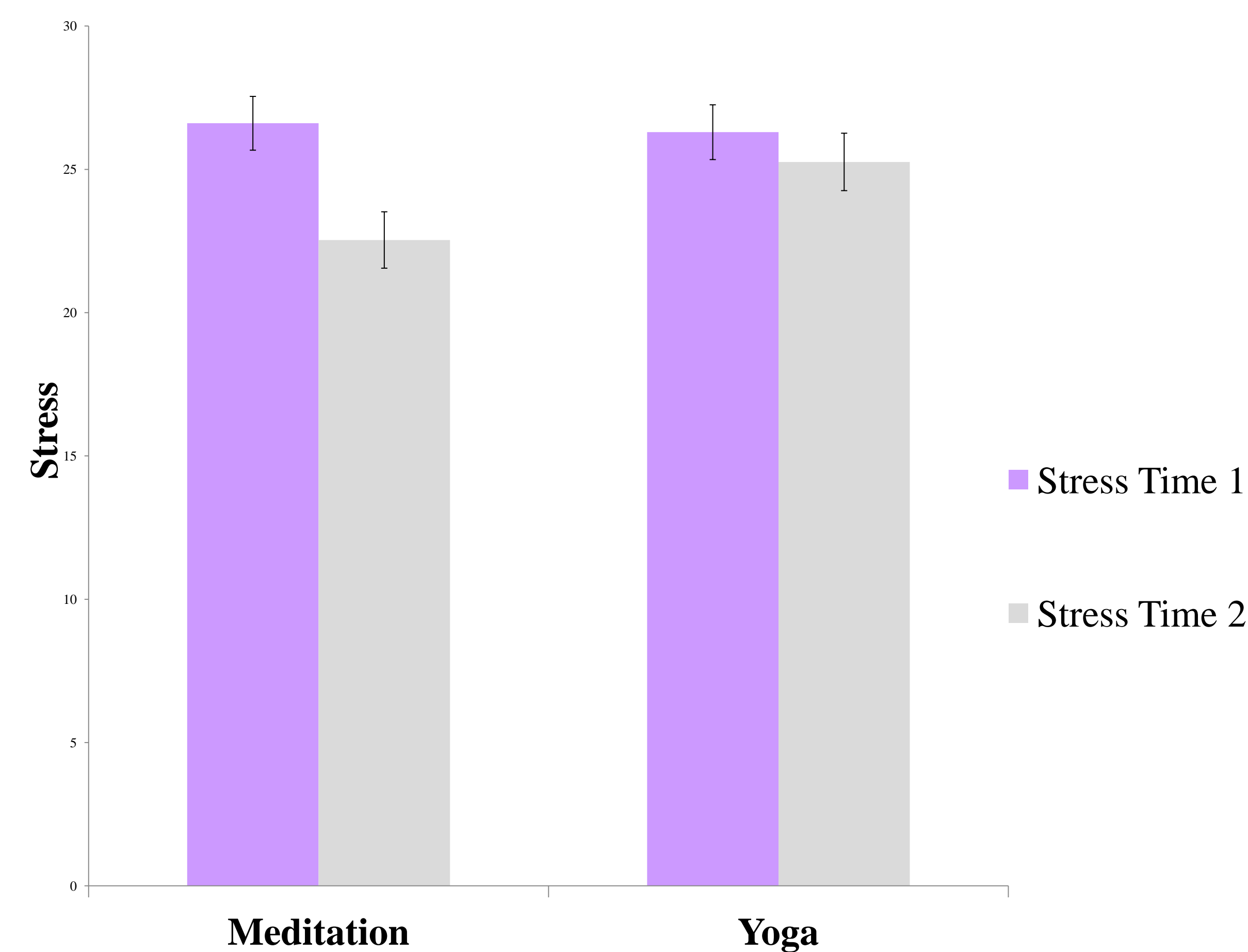
RESULTS

Measures Continued:

- Beck Anxiety Inventory (Beck, Epstein, Brown & Steer, 1988).
- PANAS (Egloff, 1998).
- Brief COPE (Carver, 1997).

Results:

- Mindfulness participants exhibited significantly greater decreases in stress than a yoga control group, $r = .527$



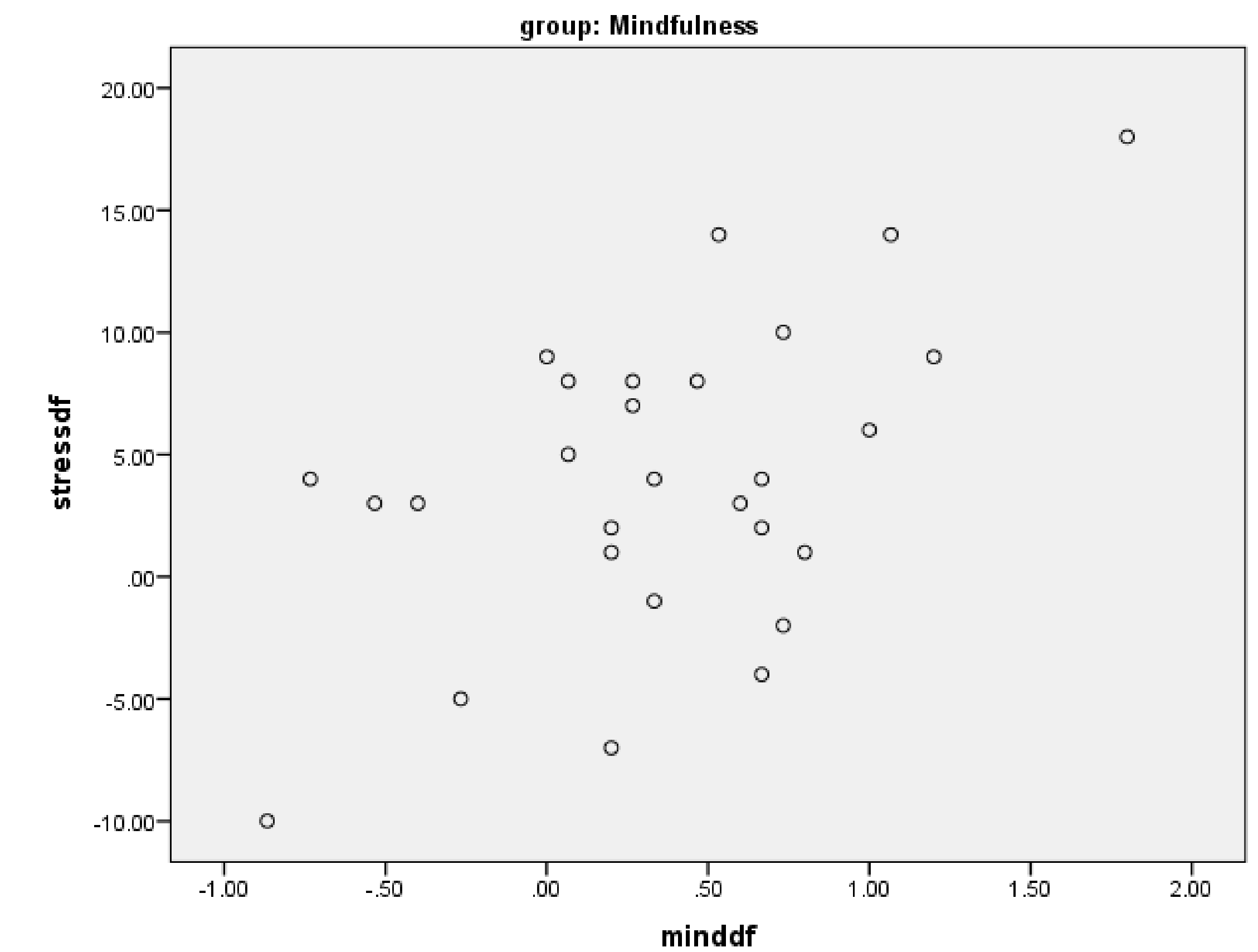
- Mean and standard error for dependent measures at pre- and post-test for meditation and yoga control groups. Significantly greater decreases in stress were seen for the meditation group. No other significant differences were seen between groups.

	Stress	Mindfulness	Approach Coping	Avoidance Coping	Agency	Pathway	Anxiety	Positive Affect	Negative Affect
Meditation Time 1	26.61 (1.11)	3.77 (.12)	11.71 (.46)	11.68 (.58)	26.39 (.82)	24.89 (.92)	11.43 (1.79)	33.71 (1.33)	18.82 (1.23)
Meditation Time 2	22.54 (1.18)	4.13 (.10)	12.32 (.43)	10.57 (.48)	26.57 (.70)	25.46 (.83)	11.21 (1.91)	35.36 (1.47)	17.68 (1.28)
Yoga Time 1	26.14 (.72)	4.07 (.19)	11.35 (.48)	11.24 (.67)	26.35 (.58)	25.24 (.55)	11.29 (2.29)	31.24 (1.29)	16.72 (1.05)
Yoga Time 2	25.79 (.89)	4.27 (.16)	11.14 (.53)	11.38 (.64)	26.14 (.60)	24.97 (.51)	8.93 (1.51)	31.14 (1.6)	17.03 (1.23)

RESULTS

Results:

- Changes in trait mindfulness for the meditators were positively correlated with their changes in stress $r = .53$



DISCUSSION

- We found greater decreases in stress in the mindfulness group as compared to the yoga control group.
- In the mindfulness group, decreases in stress were correlated to increases in trait mindfulness.
- We did not find significant effects of mindfulness meditation on coping styles, anxiety, affect and hope as compared to a yoga control.
- However, we did use a rigorous yoga control group as opposed to a no-contact control.
- Future studies will focus on the effects of an 8-week mindfulness course on stress, attention and compassion.

REFERENCES

- Arch, J.J. & Craske, M.G. (2010). Laboratory stressors in clinically anxious and non-anxious individuals: The moderating role of mindfulness. *Behavior Research and Therapy*, 48, 495-505.
- Oman, D., et al. (2008). Meditation lowers stress and supports forgiveness among college students: A randomized controlled trial. *Journal of American College Health*, 56, 569-578.

ACKNOWLEDGEMENTS

We'd like to thank Alejandro Anastasio, the mindfulness instructor for the meditation group. We'd also like to thank the College of Idaho Student Research Grant program and Student Senate. Additional thanks go to the Caldwell YMCA yoga instructors for coordinating survey collection.