

Quasi-controlled assessment of an existing mindfulness intervention through GT1000 in Honors Program students: Executive summary

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Abstract: The mindfulness training sections of GT 1000 in the Honors Program appear to be beneficial – during finals week, Honors Program students trained in mindfulness report less stress, less depression, acting more often with awareness, lower levels of negative emotion, more self-compassion, more empathy, less self-blaming, and less emotion suppression than Honors Program students who were not. There are no indications of negative effects.

Method

Within Georgia Tech, the Honors Program (HP) has been at the forefront of delivering mindfulness interventions to undergraduates. Since 2015, the HP has consistently taught multiple sections of GT 1000 focused on mindfulness. Currently, the project involves three instructors (Ameet Doshi, Library; Monica Halka, HP Associate Director; and Paul Verhaeghen, Psychology, certified KORU Mindfulness instructor). The exact content and pacing of the class varies by instructor, but students are generally introduced to practices such as body scan meditation, breathing meditation, belly breathing, dynamic breathing, *gatha* meditation, labeling-of-thought and labeling-of-feelings meditation, walking meditation, loving kindness meditation, and gentle yoga. Additionally, participants are encouraged to meditate every day on their own.

The survey itself contains well-established, valid, and reliable measures of (a) mindfulness (Baer et al., 2006), (b) different mechanisms for self-regulation, namely self-compassion (Raes et al., 2011), emotion self-regulation (Gross & John, 2003), coping (Carver, 1997), and (c) potential outcomes, namely perceived stress (Cohen et al., 1983), empathy (Spreng et al., 2009), mood (Watson et al. 1988), psychological well-being (Ryff & Keyes, 1995), and depression and anxiety (Lovibond & Lovibond, 1995).

A total of 109 students participated in the study; 54 only completed the pretest; 24 only completed the posttest; 31 completed both. Pretest was during the first week of the semester; posttest was during finals. Ideally, we should look at time (pre-post) by group (mindfulness/not) interactions, but there are only 11 participants in the mindfulness group and 21 in the non-mindfulness group for whom there are both pre and post data. Statistical power is too low to consider analyzing these data. At posttest, we have 21 mindfulness-trained participants, and 34 who were not trained in mindfulness. Thus, we conducted independent-sample *t*-tests to compare mindfulness-trained and untrained participants at posttest. Because we have expectations, tests are one-tailed, $p < .05$. Given the size of the group, significant effects have an effect size of around 0.5 *SD*, which is

considered a 'moderate' effect in psychology, and is about the typical effect size for a behavioral intervention (Lipsey & Wilson, 1993).

Results (illustrated on the next page; significant differences between groups indicated with an asterisk).

Mindfulness: Mindfulness-trained students score higher on acting with awareness; no significant difference on the other 4 facets.

Self-compassion: Mindfulness-trained students score higher on self-kindness and on total score; they engage less in self-judgments, and report lower levels of isolation.

Empathy: Mindfulness-trained students score higher on the empathy survey.

Psychological well-being: No significant differences between groups.

Mood over the past week: Mindfulness-trained students indicate fewer negative emotions.

Perceived stress: Mindfulness-trained students indicate lower levels of stress.

Distress (Depression Anxiety Stress Scale): Mindfulness-trained students report lower levels of depression; no difference between groups in anxiety and stress. (Note that there is good evidence that the stress scale on the DASS measures anxiety, not stress.) The difference in levels of depression is such that the mindfulness-trained students score on average in the normal range, while the non-trained students score on average in the mildly depressed category.

Emotion regulation: Mindfulness-trained students engage less in emotion suppression; no difference on reappraisal.

Coping: Generally no differences, except that mindfulness-trained students engage less in self-blaming. Note that students report excellent coping skills in general – the highest scores are for coping strategies that generally work.

Discussion

Generally, the effects of these mindfulness interventions appear to be beneficial. The effects on stress and depression are especially noteworthy, particularly given that posttest occurred during finals. Differences in acting with awareness, self-compassion, emotion and suppression suggest that mindfulness-trained students might possess valuable tools towards resilience.

Limitations: (a) Students self-select into these classes, so these effects might not generalize to random assignment (which seems inadvisable anyway). (b) The number of participants is smaller than desired, and did not allow for the standard pre-to-posttest interaction analysis.

Conclusions: HP is likely to continue offering these sections of GT1000 (if GT1000 is willing to have HP continue); a worthwhile option would be to consider campus-wide mindfulness classes as stand-alone 1-credit classes. We are aware that the Counseling Center offers KORU classes, but we also feel that a low-threshold offering to the general campus could reach a wider audience.

Figure: Results from the HP posttest assessment on all measured variables; asterisks denote a significant difference at $p < .05$.

