The Effectiveness of a Mindfulness-based Online Intervention to Lower Distress in Public University and Community College Settings

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Introduction

Background

- College students are highly stressed; the American College Health Association (2012) states that 86% of college students reported feeling overwhelmed in the past year.
- Self-help internet-based interventions are effective for treating depression and anxiety (Newman et al., 2010; Spek et al., 2007).
- Near all of these interventions use cognitive-behavioral therapy (CBT) techniques.
- Previous studies have found that an intervention focused on increasing perceived control was effective in decreasing stress, depression, and anxiety (Hintz et al., 2014).

Specific Aims

- **Aim #1**: Assess the effectiveness of a mindfulness-based online intervention in lowering distress in public university and community college students.
- **Aim #2**: Assess the effectiveness of adding a mindfulness component to the present control intervention.

Methods

**Participants**

- Public university students (N = 103).
- Community college (N = 73).
- Recruited from psychology classes.
- Both samples were primarily female (60-69%) and White (63-68%).
- Age was the only demographic that differed between the groups, χ² = 15.32, p < .001 (18-21 years: 72% for Public university vs. 43% for Community college).

**Materials**

- **Online Stress Management Intervention**: All participants completed the 3 modules of the Present Control Intervention which contains:
  - Videos of an expert talking about research on stress and perceived control.
  - Videos with information from other students.
  - Online exercises.
- The present control group then completed 3 stress logs, in which they wrote about what they did and did not have control over with regard to stressors in their lives.
- The mindfulness group completed 3 mindfulness exercises and logs.

**Outcome Measures**: Depression Anxiety Stress Scales (DASS), completed pre and post intervention.

**Procedure**

- Participants were randomly assigned to 1 of 3 groups: Present control, Present control + Mindfulness, Present control + Enhanced stress log.

Results

- Only the Present control and the Present control + Mindfulness conditions are presented for the purposes of this poster.

Within Group Effect Sizes, d

<table>
<thead>
<tr>
<th></th>
<th>Public University</th>
<th>Community College</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Present control</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DASS Depression</td>
<td>0.02 (ns)</td>
<td>0.14 (ns)</td>
</tr>
<tr>
<td>DASS Anxiety</td>
<td>0.04 (ns)</td>
<td>0.55</td>
</tr>
<tr>
<td>DASS Stress</td>
<td>0.02 (ns)</td>
<td>0.44</td>
</tr>
<tr>
<td><strong>Present control + Mindfulness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DASS Depression</td>
<td>0.24</td>
<td>0.16 (ns)</td>
</tr>
<tr>
<td>DASS Anxiety</td>
<td>0.21</td>
<td>0.46</td>
</tr>
<tr>
<td>DASS Stress</td>
<td>0.32</td>
<td>0.42</td>
</tr>
</tbody>
</table>

**Outcome Measures, Present control + Mindfulness**

<table>
<thead>
<tr>
<th></th>
<th>Pre (mean)</th>
<th>Post (mean)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public University</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DASS Depression</td>
<td>5.54</td>
<td>4.10</td>
<td>.004</td>
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<tr>
<td>DASS Anxiety</td>
<td>6.23</td>
<td>4.74</td>
<td>.009</td>
</tr>
<tr>
<td>DASS Stress</td>
<td>5.88</td>
<td>4.52</td>
<td>.1</td>
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<tr>
<td><strong>Community College</strong></td>
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<td></td>
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</tr>
<tr>
<td>DASS Depression</td>
<td>5.47</td>
<td>3.79</td>
<td>.003</td>
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<tr>
<td>DASS Anxiety</td>
<td>4.47</td>
<td>3.28</td>
<td>.03</td>
</tr>
<tr>
<td>DASS Stress</td>
<td>8.24</td>
<td>5.54</td>
<td>.001</td>
</tr>
</tbody>
</table>

Discussion

Overall Findings

- **Aim #1**: Participants in both samples significantly (p < .05) decreased their distress, with mean within-group effect sizes of d = 0.26 (public university) and d = 0.43 (community college). The groups had similar completion rates (73% and 67%, respectively).
- **Aim #2**: Those in Present control + Mindfulness decreased their distress more than Present control only, but only in the Public university sample.

Strengths

- Unique intervention approach via use of online technology.
- Online intervention used a mindfulness approach instead of the more typical CBT.
- Study sample consisted of both traditional and non-traditional students.

Limitations

- Unable to determine accuracy of self-reports or intervention completion.
- Long-term treatment effects not measured.

Implications

- Analysis is needed to compare these interventions to a mindfulness-only one.
- Mindfulness-based online interventions may be a useful and cost-efficient tool in lowering distress in different types of college settings.