“Power Breaks” and Mental Health: Can mindfulness interventions improve student wellbeing?

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BACKGROUND

- The advent of new stressors in the last two decades has changed the landscape of adolescent mental health care.
- The rise of socially challenging multinational, multicultural environments and the perpetual self-comparison to others in social media have contributed to this metamorphosis1-2.
- Taking a few minutes out of one’s day to relax can help alleviate perceptions of stress3-5.

Aim: determine if 5-min interventions can positively affect:
- perceptions of stress, depression, and anxiety
- heart rate and oxygen saturation levels

RESULTS

Moderate, self-reported stress levels decreased after the three-week-long intervention.

![Stress (PSS) Improvement](image)

Fig. 1. Improvement in perceived stress as self-reported with the PSS survey.
Left: PSS stress scoring breakdown. Right: PSS stress scores. Paired, two-tailed t-test: *p < .05. Score data are expressed as mean ± s.e.m.

Moderate, self-reported depressive mood improved after the intervention.

![Depression (DASS-21) Improvement](image)

Fig. 2. Improvement in perceived depressive mood as self-reported with the DASS-21 survey.
Left: DASS-21 depression scoring breakdown. Right: DASS-21 depression scores. Paired, two-tailed t-test: ***p < .001. Score data are expressed as mean ± s.e.m.

Mild, self-reported anxiety levels did not change after the intervention.

![Anxiety (DASS-21) No Change](image)

Fig. 3. Perceived anxiety levels did not change as self-reported with the DASS-21 survey.
Left: DASS-21 anxiety scoring breakdown. Right: DASS-21 anxiety scores. Paired, two-tailed t-test: n.s. Score data are expressed as mean ± s.e.m.

CONCLUSIONS

✓ “Power breaks” significantly reduce perceived stress and depressive mood. PSS and DASS-21 self-reported data suggest that “power breaks” may improve mental health among student participants.

✓ “Power breaks” did not significantly affect heart rate and oxygen saturation levels.

✓ Students wish they could incorporate “power breaks” as a part of their routine. They reported a need to change the culture of thought around mindfulness and wish that these sessions could be incorporated in long academic classes.

METHODS

- Randomized controlled crossover study
- Enrollment: N = 18
- 3 weeks: Control, Intervention (Email tips), 3 weeks: Intervention, Control
- PSS and DASS-21 surveys (adapted)
- Oxi-Pulse finger pulse oximeter
- Focus group discussions

Focus group discussions uncovered a desire to incorporate “power breaks” in routines and classes.

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain in perspective</td>
<td>Too relaxed to work</td>
</tr>
<tr>
<td>Slowing the hassle</td>
<td>Overthinking</td>
</tr>
<tr>
<td>Stress management</td>
<td>Felt need to rush</td>
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<tr>
<td>Increase in focus</td>
<td>Social anxiety</td>
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</tbody>
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REFERENCES