Supportive Accountability for University Students' Engagement with the Healthy Minds Meditation Application

Research Proposal

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Putting Research into Action

Introduction:

- College students are experiencing high rates of mental health concerns; however, many students do not receive needed mental health services (Healthy Minds, 2020; Son et al., 2020)
- Digital mental health interventions (DMHIs) can be effective in reducing mental health symptoms in college students and may help address this treatment gap (Lattie et al., 2019)
- Many DMHIs have high attrition and low engagement; 90% of users stop using mental health apps within 10 days and the median participant retention across studies may be only 5.5 days (Torous et al., 2021)
- Supportive accountability (SA), or the use of clinicians or coaches to support users' engagement with DMHIs, offers a promising solution to address this low uptake (Mohr et al., 2011)
- Human-supported DMHIs may be more effective compared to self-guided apps (Mohr et al., 2011; Werntz et al., 2023).
- Peer mentors are often an effective and acceptable source of support for college students; however, few studies have examined whether peer support improves students' engagement with DMHIs (Burton et al., 2021; Klimczak et al., 2023).

Proposed Methods:

- Undergraduate students (n = 200) at a private university in the northeastern US will use the Healthy Minds (HM) mindfulness application for 8 weeks. Half will be randomly assigned to receive SA from a trained peer, while the other half will use the app without SA for 8 weeks.
- Healthy Minds (HM) is a self-guided evidence-based meditation app that focuses on four pillars of mindfulness: awareness, connection, insight, and purpose (Dahl et al., 2020; Goldberg et al., 2020).
- Students in both groups will be oriented to the HM application by the research team and will be asked to complete recommended lessons and activities in the app for 30-90 minutes each week.
- Students (n = 100) in the SA condition will be assigned a peer mentor as part of an existing university peer mentorship program.
    - Mentors will check-in weekly and help students set weekly app usage goals and encourage app use via MentorPRO, a novel referral and supportive accountability application.
- Students (n = 100) in the control condition will be instructed to use HM without peer support.
- The Patient Health Questionnaire-4 (PHQ-4), Perceived Stress Scale (PSS), and The Mindful Attention Awareness Scale (MAAS) will be measured at three timepoints (baseline, 4 weeks, and at the end of the 8 weeks).

Understanding whether **peer support** improves college students' **engagement** with a mental health app can help researchers better address **gaps** in **college student mental health care**.

Study Aims and Hypotheses:

- This proposed randomized controlled trial will test whether SA from a peer mentor:

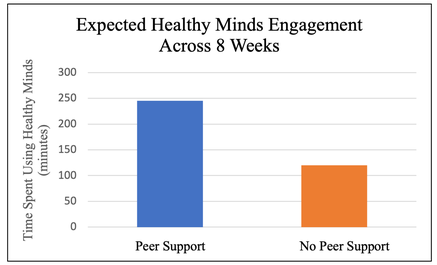
1) Increases university students' engagement with a mindfulness application
2) Leads to greater reductions in mental health symptoms and improves their use of mindfulness-based skills relative to students who use the app without SA

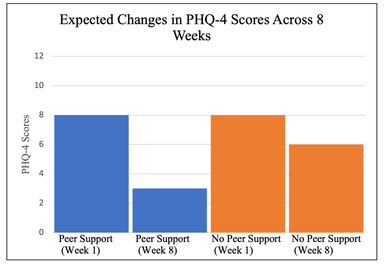
We hypothesize that students who receive SA will spend more time using HM, will have greater reductions in mental health symptoms, and increased use of mindfulness-based skills compared to students without SA over the 8-week study period.

Data Analysis Plan:

- We will collect and report descriptive statistics on students' app usage data (e.g., time spent in the app, number of lessons and activities completed, and number of days the app was used).
- We will conduct independent t-tests to determine whether there were significant differences between students' use of HM across the two groups.
- We will also conduct repeated-measures ANOVAs to measure changes in mental health symptoms and use of mindfulness-based skills across the two conditions and three timepoints.

Expected Results:





Discussion:

- This study has the potential to inform models of mental health service delivery on college campuses.
- By leveraging peer support to encourage students' use of evidence-based MH apps, we can help to increase the accessibility of DMHIs and may reduce stigma and other barriers associated with using mental health services.
- Human-supported DMHIs can be used to address the college student mental health crisis, ultimately leaving a lasting public health impact.
- Future research may seek to understand for whom supportive accountability might be most effective, what kinds of support may lead to greater engagement and improved mental health outcomes, and how chatbots and AI may help scale supportive accountability.