The Benefits of Using the Healthy Minds Application in Medical Students

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Purpose: Studies have shown that medical students have an increased risk for depression and suicide compared with the general population and that risk increases throughout medical training.1 These mental health issues are evident beginning in the first year of medical school and if not addressed, negative outcomes such as burnout, substance abuse, and suicidality are more likely to occur.2,3 We studied the effects of using a Healthy Minds Program mobile application (app) on the well-being of medical students. This app was created by Healthy Minds Innovations, Inc (HMI) in collaboration with the Center for Healthy Minds at the University of Wisconsin—Madison. The app is aimed at the cultivation of 4 key attributes of wellness: awareness, connection, insight, and purpose. The goal of the study was to understand the benefit of the app on important health and well-being outcomes and if this would depend on usage amount.

Approach: Sixty-one first-year medical students at the Medical College of Wisconsin Milwaukee campus volunteered for the study that was run between February and May 2020. Half received access to the app at the start of the study for 6 weeks (intervention group), and the other half did not gain access until the 6 weeks passed (control group). Outcomes were assessed at baseline (T0), at the midpoint (T1), and the end of the study (T2). Outcome measures included basic demographics (T0), the Depression, Anxiety, and Stress Scale - 21 Items (DASS-21) (T0, T2), the Medical Student Well-Being Index (MSWBI) (T0, T1, T2), the Healthy Minds Index (HMI) developed by Healthy Minds Innovations, Inc. (T0, T1, T2), Human Flourishing Index (T0, T2), Maslach Burnout Inventory (T0, T2), Self-Compassion Scale (SCS) (T0, T2), Insomnia Severity Index (T0, T2), perceived social support (PSS) (T0, T2), and connectedness (T0, T2). Completion and usage (measured as time spent in each module) of the app were collected and analyzed. Delta scores were computed for outcomes measured at T0 and T2, and repeated measures analysis of variance was conducted on measures collected at all 3 time points.

Outcomes: Fifty-six participants completed the midpoint survey (n = 28 in each group), and 48 individuals completed all 3 surveys (n = 25 in group 1, n = 23 in group 2). Overall, a significant improvement was found between T0 and T2 for the following outcomes: overall self-compassion scores (0.23, \( P < .01 \)), PSS (2.98, \( P < .01 \)), and overall human flourishing (0.46, \( P < .001 \)). Participants in the intervention group had a significant mean increase in their mindfulness scores (subdomain of the SCS) between T0 and T2 (delta = 2.98, \( P < .01 \)). The HMI and connections scores were significantly higher at T2 than the T1 or T0 (\( P < .05 \)) regardless of group. Time and interaction between the intervention group and time was found (\( P < .01 \)). MSWBI scores at T2 was significantly higher than T0 (\( P < .05 \)). The interaction revealed the intervention group had significantly improved mean MSWBI scores at T1 from T0 compared to the control group. The control group had improved mean MSWBI scores at T2 from T1 or T0 compared to the intervention group. Overall, participants app completion ranged from 92% to 16% for the wellness attributes in the foundations module, followed by the awareness module (completion ~16%).

Discussion: MSWBI is a measure of psychological distress with a unique dimension of measuring dropout risk. Our results suggest that using the application improves MSWBI. The improvement in mindfulness (SCS subdomain) and connections (HMI) scores suggests a potential mechanism by which this improvement could be operating given the goals of the application.

Significance: The results of this study suggest that medical students may be supported through their first year of medical school training using the Healthy Minds Program app. Even during the COVID-19 pandemic, it was encouraging to find students improved on various health and well-being measures.

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Funding/Support: None reported.

Other disclosures: None reported.

Ethical approval: This project is institutional review board approved.

References

Starting Off on the Right Foot: Prevention Services for Med-1s

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Purpose: The stressors associated with medical school result in mental health and/or academic challenges for some students. For instance, students report more mental health problems while in medical school than they do before beginning their medical education.1 Additionally, due to the difficulty and volume of content, many face academic challenges for the first time. This presentation will describe the acceptability of prevention programs for first-year medical students (Med-1s) from 2 medical schools.

Approach: At Ohio State University College of Medicine, a Cognitive Behavioral Therapy (CBT) Skills program was developed for Med-1s (N = 201). The program consisted of 4 mandatory sessions. Topics addressed included: the cognitive model, Socratic questioning, mindfulness of thoughts, emotions, and physical sensations, and values and committed action. A modified version of the Treatment Acceptability/Adherence,2 which is a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7), was sent to students.