Abstract

Participant Engagement in a Commercially Available App-Based Mindfulness Training Intervention Delivered to Women Diagnosed with Breast Cancer

Kristen Rosen, PhD, MPH; Jennifer Potter, PhD, MPH

UT Health San Antonio, San Antonio, TX, United States

Corresponding Author:
Kristen Rosen, PhD, MPH
UT Health San Antonio
7703 Floyd Curl Drive
San Antonio, TX,
United States
Phone: 450 8587
Email: rosenk3@uthscsa.edu

Abstract

Background: Mindfulness training may improve quality of life (QoL) among women diagnosed with breast cancer, yet barriers associated with instructor-facilitated training (eg, cost, location, time) may limit uptake. Self-directed mindfulness training using smartphone apps may overcome these barriers. However, little is known about who may be most likely to engage in app-based mindfulness training (AMT) interventions.

Objective: We examined baseline predictors of app engagement among women diagnosed with breast cancer (≤5 years) enrolled in a randomized controlled trial (RCT) of a commercially available AMT intervention (Headspace).

Methods: Participants (n=57) received AMT as part of a 12-week RCT. Headspace was available for download from iTunes or Google Play. Participants were asked to complete app registration using a unique activation code and complete ≥ 1 mindfulness session; this was defined as "minimum dose." Overall, AMT engagement was self-guided. Participants completed baseline measures of QoL (FACT-B), dispositional mindfulness (MAAS), pain severity and interference (BPI-sf), and demographics. Log data was obtained from the app developers at the end of the study. AMT engagement was characterized by: attaining minimum dose, number of mindfulness sessions completed, and duration (minutes) of overall mindfulness practice.

Results: Overall, 34 participants completed app registration and ≥1 mindfulness session (minimum dose). Over the 12-week trial, the median number of mindfulness sessions completed was 11.50 with a range of 1-87 sessions completed. Median duration of overall mindfulness practice was 115 minutes, with a range of 10-1411 minutes. Participants who attained minimum dose had greater baseline physical well-being (mean 20.74 [SD 5.67]) compared to those who did not have any recorded engagement with AMT (mean 16.43 [SD 8.15]; t[36.2]=-2.20, *P*=.04). Pain severity was lower for participants who attained minimum dose (mean 3.12 (SD 1.69]) compared to those who did not (mean 4.61 [SD 2.05]; t[29]=2.20, *P*=.04). Other domains of QoL, dispositional mindfulness, pain-related interference, and demographics did not differ between groups. Among those who attained minimum dose, only pain-related interference was associated with fewer mindfulness sessions completed (*P*=.05).

Conclusions: App engagement was not recorded for slightly fewer than half of participants (ie, did not complete registration and ≥1 mindfulness session). Although reasons for non-adherence are unclear, findings suggest physical well-being and pain-related factors may be associated with participant AMT engagement. Given mindfulness practice time is associated with mindfulness skills uptake, future studies should explore approaches to optimize AMT engagement among participants with greater physical well-being and pain-related concerns.

XSL·FO
RenderX