

Poster

# Mobile Apps for Behavioral Health: A Survey on User Engagement

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## Abstract

**Background:** The number of mobile app interventions for behavioral health has grown exponentially over the last decade. A recent study by the IMS Institute for Healthcare Informatics found that health and wellness apps available to consumers more than doubled between 2013 and 2015, from 43,000 to over 90,000. Despite their availability, mobile app interventions are not yet offered or encouraged routinely in behavioral health treatment planning. One possible reason for minimal implementation is limited knowledge of patient preferences regarding use of these interventions.

**Objective:** The current study seeks to increase knowledge in three key areas related to mobile app interventions designed specifically to address a key area of behavioral health: depression and/or anxiety. Depression and/or anxiety were selected as the focus for this project given that these mental health disorders affect over a quarter of the US population and are highly comorbid. Key research questions include (1) What are the demographics of patients who are most interested in using mobile app interventions for depression and/or anxiety? and (2) What are the reasons patients endorse for disinterest in mobile app interventions for depression and/or anxiety?

**Methods:** Potential participants were identified at random from a list of veterans diagnosed with a mood and/or anxiety disorder (per the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition) who attended a primary care appointment during 2014 at a Veterans Affairs Medical Center located in a major metropolitan area of the northeastern United States. A total of 400 potential participants are being mailed a brief (15 minute) survey. A modified Dillman method is being used in which a prenotification letter is mailed out to participants, followed by the survey with an opt-out form, followed by up to two additional mailings for those potential participants who do not respond.

**Results:** Data collection is expected to be complete in late August of 2016. The poster proposed here will include findings from descriptive analyses on use of technology (smart phones, mobile apps in general, mobile apps for any behavioral health concern, and mobile apps for depression and/or anxiety) in different demographics. Additionally, descriptive data on reasons endorsed for low willingness to use mobile app interventions for depression and/or anxiety (when recommended by a health care provider as well as when accessed independently) will be presented. Finally, findings from analyses evaluating the relationship between demographic variables (race, gender, education, age, and symptom severity) and level of interest in mobile app interventions for depression and/or anxiety will be presented.

**Conclusions:** The target audience for mobile app interventions for depression and/or anxiety and reasons patients may choose not to use these interventions will be identified. Limitations include using a veteran-only sample and focusing exclusively on interventions for depression and anxiety rather than other areas of behavioral health. Future research should seek to build upon findings by broadening the scope of investigation to civilians and other areas of behavior change. Findings from this study can inform healthcare providers and app developers on patient preferences regarding mobile app interventions.

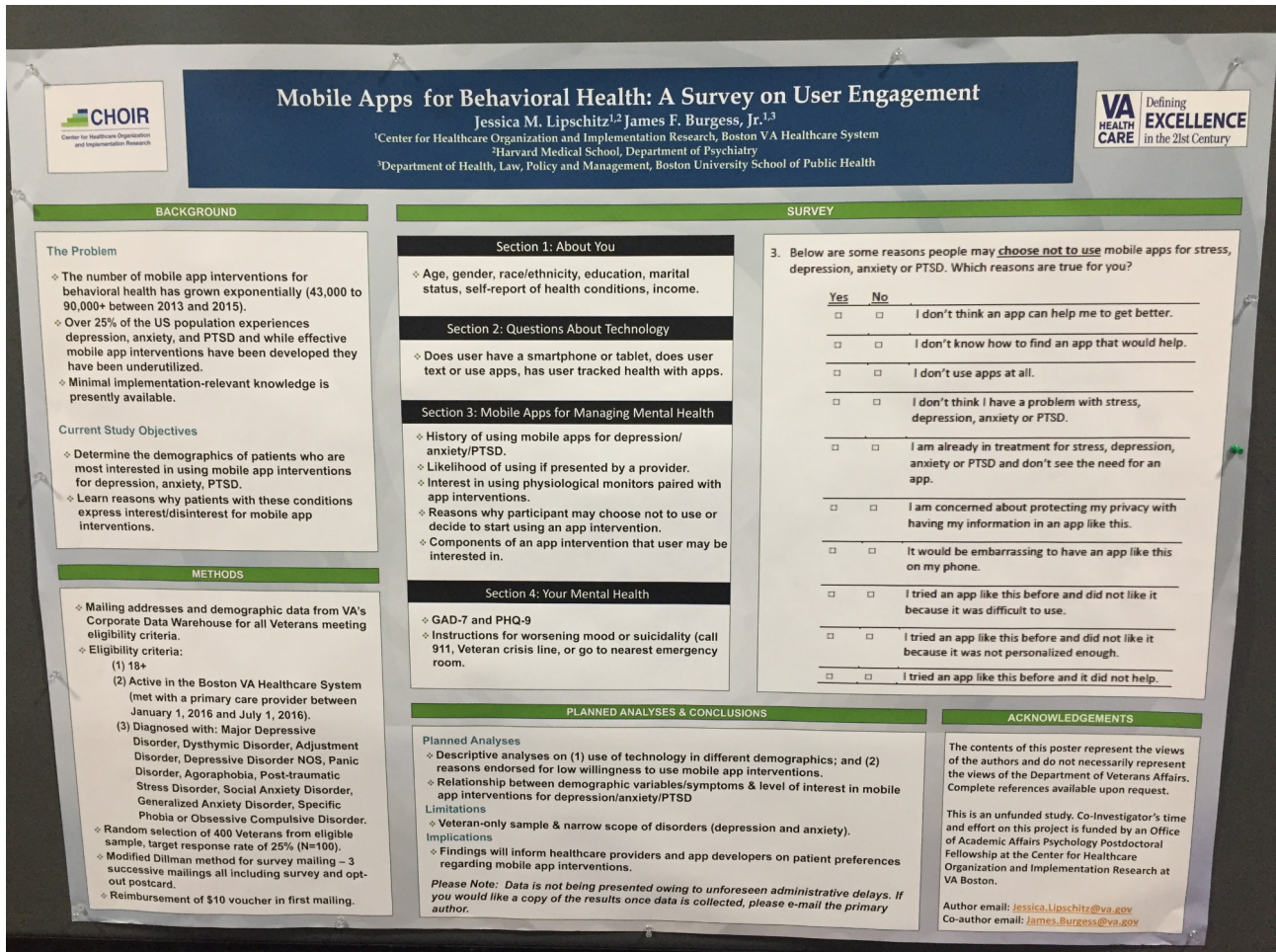
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**KEYWORDS**

behavioral health; depression; anxiety; mobile apps; health interventions; mHealth

This poster was presented at the Connected Health Symposium 2016, October 20-21, Boston, MA, United States. A photo of the poster is displayed as an image in [Figure 1](#) and as a higher resolution image in [Multimedia Appendix 1](#).

**Figure 1.** Poster.



**Multimedia Appendix 1**

Poster.

[\[JPG File, 2MB-Multimedia Appendix 1\]](#)

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