
INTRODUCTION

By integrating smartphone apps into standard treatment, clinicians may potentially improve treatment quality, expedite its process, and reduce barriers to access.

Smartphone apps can complement standard PTSD treatment in a variety of ways: ¹⁻⁸
- e.g. Homework tools, psychoeducation
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- e.g. ResultCheck, virtual PTSD coach
- e.g. Reddit, PTSD Coach
- e.g. MyMoodTrack, Mood Tracker
- e.g. Cheithel.core, Mela
- e.g. Search Engine, Google.com

Recent research has shown that apps are a feasible method for enhancing standard treatment for PTSD. ³⁻⁴
- 10% of veterans receiving individual treatment to PTSD reported owning a smartphone
- 80% reported interest in at least one potential use of an app as part of therapy

VA clinicians trained in evidence-based treatment for PTSD generally found treatment integration of smartphone apps to be feasible.²

There are few comprehensive resources available to find information on smartphone apps that can be used in collaboration with standard treatment for PTSD.

METHOD

Systematic Review of Publicly Available Smartphone App Information

This study utilized an extensive web search to locate as many relevant smartphone apps for individual treatment of PTSD as possible with a variety of web locations and search criteria.

Web search for relevant apps:
- Search Engines: e.g. Google.com, Yahoo!
- Online App Firms: e.g. App Store Communities.
- e.g. Reddit
- App Rating Sites: e.g. App Store
- e.g. MyMoodTrack
- e.g. Government Mobile App Sites
- e.g. Cheithel.core, Mela

Search terms included either “App” or “Apps” and the following:
- e.g. PTSD
- e.g. PTSD Coach
- e.g. WARCO, PTSD Coach
- e.g. Mindfulness/Relaxation
- e.g. Cognitive Processing Therapy
- e.g. Social Support for PTSD
- e.g. PTSD-specific apps

RESULTS

Available Apps

The web search used to find relevant apps for this study may have missed relevant apps to this study

Apps specific to other conditions that still could still be useful for someone with PTSD, or in treatment for PTSD may have been excluded:
- Apps for disorders whose symptoms overlap with PTSD (e.g., depression app to treat insomnia)

Information collected is only as current as the time of data collection.
- Variables are subject to update

Metrics used were those made publicly available:
- Number of reviews and rating score may not reflect the full extent of app usage.

Limitations

While there are several smartphone apps that offer stand-alone clinical utility, very few apps include components specific to treatment integration.

- Given the potential benefits to treatment for PTSD by integrating smartphone apps, these results may imply that apps are an underutilized method of increasing access and confidence of care provided when consistently scheduled and used.
- There may be limitations to access to some apps (e.g., software requirements)
- This review did not find any apps in development that are being built specifically for treatment integration.

The challenge of this conclusion is to determine how to best integrate information from apps into on-going treatment.

113 apps were found and included in this review

Treatment Integration: Of these, only two apps were designed explicitly for integration with standard treatment

CPT Coach
- Companion to standard CPT treatment
- Allows for clinicians and patients to create and adjust homework assignments
- Explicitly not stand-alone treatment
- Includes psychoeducation, homework forms, reminders, and adherence tracking

PE Coach
- Companion to standard PE treatment
- Allows for clinicians and patient to create and adjust homework assignments
- In-session recording for homework use
- Includes psychoeducation, homework forms, reminders, and adherence tracking
- Clinician manual available

Treatments used for PTSD in VA

<table>
<thead>
<tr>
<th>Mental Health or Treatment App</th>
<th>PTSD Specificity</th>
<th>PTSD vs. Other</th>
<th>Designated for Treatment Integration</th>
<th>Mental Health Variables</th>
<th>Treatment Integration Variables</th>
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</thead>
<tbody>
<tr>
<td>PTSD Coach</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Homework Tools</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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Variation: Apps collected were from a variety of sources.
- E.g. PTSD treatment
- E.g. PTSD Coach

Use: 111 of the apps were designed to be stand-alone in what utilities they offered.
- APTSD treatment for PTSD or its symptoms (e.g., PTSD Coach)
- Some apps were designed for PTSD treatment
- Some apps were designed specifically for other disorders (e.g., TRT coach)

Cost: Cost of apps was neither free or expensive to download
- Most of the apps were free or inexpensive to download

Ratings: Mindfulness/relaxation apps were the most abundant, highly rated, and frequently rated.
- PTSD mindfulness/relaxation apps offered the same features (e.g., meditation exercises)

Conclusions & Implications

While there are several smartphone apps that offer stand-alone clinical utility, very few apps include components specific to treatment integration.

- Given the potential benefits to treatment for PTSD by integrating smartphone apps, these results may imply that apps are an underutilized method of increasing access and confidence of care provided when consistently scheduled and used.
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The challenge of this conclusion is to determine how to best integrate information from apps into on-going treatment.

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<th>App Name</th>
<th>Overall iOS Rating</th>
<th>Minimum iOS Software Version</th>
<th>iOS Software Version</th>
<th>Overall Number of iOS Raters</th>
<th>Available and Accessible</th>
<th>Designed for Treatment Integration</th>
<th>Mental Health Specificity</th>
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*VA VISN17 Center of Excellence for Research on Returning War Veterans; ²VA Center for Healthcare Organization and Implementation Research; ³VA Center for Clinical Management Research - Texas A&M Industrial & Systems Engineering; ⁴VA Center for Remote Health Technologies and Systems; ⁵Texas A&M University; ⁶Texas A&M Health Science Center; ⁷Texas MBB Health Systems Engineering; ⁸Center for Remote Health Technologies and Systems.