PTSD Coach Mobile Application

Application Overview

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Funding Provided By

Partner Organizations
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Initial Development

• 80 Veterans with PTSD participated in informal focus groups to provide input on features
• Top request: something I can do when I’m stressed wherever I am
• Various promising options rejected by Veterans, such as location based services
PTSD Coach is a mobile phone application for people with Posttraumatic Stress Disorder (PTSD) and those interested in learning more about PTSD.

This application provides:

• education about PTSD
• a self-assessment tool
• portable skills to address acute symptoms
• direct connection to crisis support and
• information about treatment aimed at guiding those who could benefit into care.

It can be used as a stand-alone education and symptom management tool, or to augment face-to-face care with a healthcare professional.

Due to the application’s portability, these tools are easily accessible when they are needed most.
PTSD Coach Overview

PTSD Coach is a mobile application for people with Posttraumatic Stress Disorder (PTSD), and those who want to learn more about PTSD.

The application provides:
- education about PTSD
- a self-assessment tool
- portable skills to address acute symptoms
- direct connection to crisis support
- Information to guide users toward treatment
Home Screen

- From the home screen (seen here), users can choose from the four main actions of the application. Each of these will be demonstrated in upcoming slides.

- Users may also use “Setup” to personalize the app with media from their own phone. Users are also guided through this process automatically on their first time through the app.

- The “About” button provides users with information about the application and access to the team that built it.
Home Screen

• From the home screen, users can choose from the four main actions of the application.

• Users may use “Setup” to personalize the app with media from their own phone.
Learn about PTSD

- The Learn about PTSD section provides psychoeducation about various frequently asked questions. Information provided here is derived from the National Center for PTSD Fact Sheets and the VA’s MyHealthVet website.

- Information provided is around two topic areas
  - PTSD basics
  - How to find professional care and what to expect in treatment

- When selected, each topic leads to a separate page with brief written psychoeducation. Users can also choose to listen to the same information by clicking the ear icon.
Learn about PTSD

- The Learn about PTSD section provides psychoeducation based on common frequently asked questions.

- Two topic areas:
  - PTSD basics
  - How to find professional care and what to expect in treatment

- When selected, each topic is presented on its own page with
  - brief written psychoeducation and
  - a link to an audio version.
Self-Assessment

- The assessment provided is the PTSD CheckList (PCL), which is a validated measure that is used broadly throughout the VA, DoD, and civilian settings.

- After each administration of the assessment, users are provided interpretive feedback including their severity (high, medium, low) and information about their score relative to the last administration.

- Users can view their historical data in graphical form.

- Users can also schedule future assessments and will be given a reminder at the appropriate time.
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  • their symptom severity (high, medium, low) and
  • information about their score relative to their last administration.

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Self-Assessment Screenshots

Question 1 of 17

In the past one month, how much have you been bothered by repeated disturbing memories, thoughts, or images of the stressful experience?

- Not at all
- A little bit
- Moderately
- Quite a bit
- Extremely

Assessment

Your score went up since the last time you took the assessment, which means that some things are bothering you more than they were before.

Reactions like yours are normal. Many people who experience a trauma have this kind of reaction, at least for the first few weeks or months after the trauma.

People who have symptoms like yours can often benefit from talking to a healthcare provider. For information on where to find one, check out the Find Support section of this app. Seeking help will be especially important if you think that you may have other trauma-related symptoms.

Symptom History

You can track your symptoms by scheduling times to take the self-assessment in the future. It is normal for your symptoms to change a bit from day to day. It is most important to look for a trend over time. So, you should not take this self-assessment more than once per week. In most cases we suggest one time per month. This will help you see if your symptoms are getting better, worse, or staying the same.

Schedule Assessment

Would you like to set up a follow-up assessment now?
Managing Symptoms

- The main action of the application is in providing people with skills to manage their stress in the moment they experience it. The user is first asked what is wrong (seen here), then asked to rate their distress on a scale of 0 to 10 (seen on the next slide). Depending on the problem and the severity, the user is routed to any of a number of helpful skills. All skills are based on cognitive-behavioral principles.

- Once a tool is offered, the user can again rate their distress. S/he is offered feedback about the change in score. The user can also give any skill a thumbs up or thumbs down, which changes its relative likelihood of showing up again. A thumbs up rating also automatically adds the tool to the user’s favorites list.

- Users can also select the “Favorites” button in order to quickly access tools they have liked or perceived as helpful in the past.

- See next slide for the workflow for this section.
Managing Symptoms

The main action of the application: Providing people with skills to manage their stress in the moment they experience it.

Process:

• User selects symptom area
• User rates distress on scale of 0 to 10
• Depending on the problem and the severity, the user is routed to any of a number of cognitive-behavioral skills.
• After completing the tool, user re-rates distress.
• User receives feedback on score.
• Option to give thumbs up/down.
Managing Symptoms Process

Symptom or Favorites
SUDS baseline
Appropriate tool
Thumbs up / thumbs down
Shake / skip if desired
SUDS
SUDS feedback
Another tool or done
## Symptoms and Tools Matrix

<table>
<thead>
<tr>
<th>Tool Classes</th>
<th>Re-experiencing</th>
<th>Avoidance</th>
<th>Social Isolation</th>
<th>Dissociation</th>
<th>Sad/Hopeless</th>
<th>Anxiety</th>
<th>Anger</th>
<th>Sleep</th>
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</thead>
<tbody>
<tr>
<td>Interactive relaxation tools</td>
<td>x</td>
<td>x</td>
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<td></td>
<td></td>
<td>x</td>
<td>x</td>
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<td>RID (Stress Inoculation Training)</td>
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<tr>
<td>Change your perspective</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Grounding</td>
<td>x</td>
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<tr>
<td>Make a Plan to Reduce Isolation</td>
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<tr>
<td>Take a Time Out</td>
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<tr>
<td>Help Falling Asleep</td>
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<td>Schedule Pleasant Events</td>
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<tr>
<td>Seek Support</td>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Distract from Intense Emotions</td>
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<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Soothe Yourself</td>
<td>x</td>
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<td>x</td>
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<tr>
<td>Inspiring Quotes</td>
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<td>x</td>
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</tr>
</tbody>
</table>
Tool Examples

1. **Deep Breathing**
   - Listen to the audio and follow along with the exercise.
   - I'm Done

2. **Positive Imagery**
   - Listen to the audio and follow along with the exercise.
   - Make yourself comfortable, so that your thoughts are on the image and nothing else.
   - I'm Done

3. **Soothing Pictures**
   - Look at a picture that is meaningful or soothing to you. (Tap on the plus sign to zoom in.)
   - I'm Done

4. **Make A Plan**
   - Select an activity to do with this person:
     - Joe Johnson
     - Go out for a meal

[Images of mobile phone screens showing the examples]
Find Support

In the Find Support section of the app, the user can either get support immediately, set up a support network from contacts already housed on the phone, or locate professional care.

Get Support Right Now leads to the screen to the right, which provides immediate access to emergency services as well contacts that were previously selected from the user’s address book.
Find Support

- Immediate access to public and/or personal supports
- Opportunity to add contacts to crisis list
- Links to various vetted hotlines and websites, primarily geared towards Veterans and Service Members.
Content-oriented design

- All content and much of the app structure is represented in standard XML (eXtensible Markup Language); text content can also use HTML markup
- Application build process reads XML and copies data into app database for fast access
- Application UI is built dynamically at run-time based on XML content and theming options
- Allows easy authoring and update of content by SMEs without code changes
- No dependency on iPhone-specific resource format (i.e. Interface Builder), so good basis for reuse for other mobile platforms (e.g. Android)
Evaluation Plan

- Led by Carolyn Greene, Ph.D.
- 50 iPod touches
- Flurry integrated
- Further solutions forthcoming
- Feasibility with local PTSD patients
- Paper #1: Study design
- Paper #2: Pilot data
- Paper #3: Clinical trial data
Metrics and Measures of Success

• Released to iTunes App Store on April 7, 2011. It was announced in a press release on whitehouse.gov on April 19, 2011.
• Since its launch, PTSD Coach has been downloaded 5,920 times.
• 95% of downloads have occurred in the United States, but the remaining 5% were in 27 countries, on every continent except Antarctica.
• Veterans Crisis Line usage
• Android version is complete and will be released pending 508 compliance testing.
Legal Constraints

• The app does not collect Personally Identifiable Information
• End User License Agreement clearly indicates that this is not intended to replace treatment
• The app does not transmit any data off of the device
• The only data that is collected is anonymous aggregate data
FAQs

• Do I need an iTunes account to download this app?
  – Yes, although the app is free, you do need a free account on iTunes to download it for your iPhone, iPod Touch, or iPad.

• My phone says that the app is too big to download.
  – In order to include all of the tools, we needed to make the app bigger than 20 MB. Because of restrictions from Apple, this means that the app can only be downloaded via WiFi or through iTunes on your computer (it cannot be downloaded over cell networks)