**Veterans’ Preferences for a Remote Monitoring Tool for PTSD**

**Smith, A. 1, Sasangohar, F.1,2 , alec.smith@tamu.edu; sasangohar@tamu.edu;**

1 Department of Industrial and Systems Engineering, Texas A&M University; 2 Houston Methodist Hospital

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### 1. BACKGROUND

**Post-traumatic Stress Disorder (PTSD)**
- Occurs after experiencing traumatic event
- Characterized by intrusion of negative thoughts, feelings, avoidance, hyperarousal
- Veterans particularly susceptible (APA, 2013)

**Veteran Experience of PTSD**
- Comorbidities: anxiety, depression, emotional distress, social isolation, physical disabilities (Plach et al., 2015; Yarvis & Schies, 2008)
- Higher suicide rate than general population (U.S. Department of Veterans Affairs, 2019)

**PTSD Treatment**
- Pharmacotherapy: taking medications
- Downsides: Forgetfulness or refusal to take medicine (Zullig et al., 2015)
- Psychotherapy: talking to clinician, reflections
- Downsides: Unwillingness to talk, stigma of therapy (Stecker et al., 2013)
- Both lack monitoring patient between sessions

**Monitoring Technology**
- Monitoring tool compensate for in between sessions
- Previous work done in monitoring chronic illnesses (Franklin et al., 2003)
- Need for discrete method for monitoring for PTSD veterans (Rodriguez-Paras et al., 2017)

**Critical Need:** Identify key requirements for a monitoring tool for PTSD veterans
- Veteran-centered for maximum adoption and use

### 2. DATA COLLECTION

**Interviews with PTSD veterans**
- 50 veterans recruited from a bike-riding program across several states
- Interviews transcribed and validated
- Participants compensated for participation
- IRB approval obtained

### 3. INTERVIEW ANALYSIS

- **Code Development**
  - Review protocol and create codes based off themes and topics
- **Initial Coding**
  - Categorize segments of text into codes
  - Create new codes as necessary
- **Focused Coding**
  - Review initial codes
  - Create more specific subcodes
- **Code Discussion**
  - Discuss code creation and coding process
  - Discuss thematic elements

### 4. RESULTS

The visualizations present four themes and their subthemes with examples from the participants. The realization of these design preferences are reflected in the phone image.

1. Momentary Assessment and Intervention
2. Connectivity
3. Social Communication
4. Periodic Assessment and Intervention

### 5. IMPLICATIONS & WORK IN PROGRESS

- Personal requirements would allow for greater freedom in personalizing the tool.
- Short term help is focused on immediate needs.
- Long term help aims to change behavior.
- Connectivity allows vets to communicate better.

**Work In Progress**
- Smartwatch and phone app developed
- Undergoing usability testing and evaluation

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For more information about this work, please contact Dr. Farzan Sasangohar at sasangohar@tamu.edu