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TITLE: Enhancing Intensive Transdiagnostic Cognitive Behavioral Therapy for Veterans with PTSD and Anxiety Disorders

PRINCIPAL INVESTIGATOR: Ellen Teng, PhD

CONTRACTING ORGANIZATION: Baylor College of Medicine

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14. ABSTRACT

We have no findings to report in Year 1 of this study. This randomized controlled trial tests an innovative transdiagnostic cognitive behavioral treatment (TCBT) for Veterans and Service members with PTSD and anxiety. This project examines the effectiveness of the treatment delivered in a weekend group format or 2-week individual format. Treatment non-responders receive 6 additional hours of treatment. Primary study aims are to examine the effectiveness of: (1) group and individual iTCBT in improving anxiety symptoms and quality of life and (2) the enhanced treatment in improving anxiety symptoms and quality of life for those who do not initially respond to treatment. A total of 306 Veterans, Active Duty, and Reservists with a diagnosis of PTSD and/or an anxiety disorder will be randomized to receive the treatment either in a two-day (e.g., weekend) group format or a 2-week individual format. Those randomized to a third condition will receive treatment-as-usual. Assessments are completed at three time points: baseline and 3- and 6-month follow-ups. Primary study outcomes include measures of anxiety and quality of life at 6-month follow-up.

15. SUBJECT TERMS

PTSD, Anxiety, Treatment, Intensive Treatment, Cognitive Behavior Therapy, Veterans, Service Members

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1. INTRODUCTION:

Many Service Members and Veterans experience posttraumatic stress disorder (PTSD) and related anxiety disorders such as panic, generalized anxiety and social anxiety. These problems often co-occur and interfere with normal daily functioning. People who experience these problems have difficulty reintegrating and leading productive and meaningful lives. Many use substances to help them cope, and some consider suicide as a solution. Although there are effective treatments, Service Members and Veterans often do not seek treatment due to stigma, inability to access treatment, and time away from work, school, and family. Of those who do initiate treatment, many do not complete treatment for the same reasons. The goal of this study is to evaluate the effectiveness of an evidence-based transdiagnostic cognitive-behavioral treatment (iTCBT) delivered in an intensive format. This clinical trial will randomize 306 participants to one of three conditions. The two active treatment conditions will be delivered in either a group format over two days (e.g., weekend) or in an individual format over two weeks. Those who do not experience significant clinical improvement with a standard course of treatment will be provided with additional enhanced treatment. The third condition is treatment-as-usual. All participants will complete assessments at baseline, 3- and 6-month follow-up time points. The brief and intensive formats of this intervention can produce rapid symptom improvement while also increasing the accessibility of an effective treatment.

2. KEYWORDS:

PTSD, Anxiety, Treatment, Intensive Treatment, Cognitive Behavior Therapy, Veterans, Service Members

3. ACCOMPLISHMENTS:

What were the major goals of the project?

	Timeline (Months)	Houston VAMC	% Complete
Major Task 1: Obtain All Regulatory Permissions			
Subtask 1: Prepare Regulatory Documents and Research Protocol			
Refine eligibility criteria, exclusion criteria, screening protocol	1-3	ET	100
Finalize consent form & human subjects protocol	1-3	ET	100
Prepare IRB protocol submission	1-3	ET	100
BCM IRB review	1-3	N/A	100
VA R&D VACS submission	1-3	ET	100
USAMRDC review (ORP/HRPO)	1-6	ET	100
Clinicaltrials.gov registration	6	ET	100

Submit amendments, adverse events and protocol deviations as needed	As Needed	ET	N/A
Prepare and submit annual IRB report for continuing review	Annually	ET	100
Milestone Achieved: IRB approval at BCM	3		100
Milestone Achieved: HRPO approval for research protocol and BCM IRB approval	6		100
Major Task 2: Coordinate Study Staff for Clinical Trial			
Subtask 1: Hiring and Training of Study Staff			
Advertise and interview for project related staff	1-3	ET/KB	80
Ensure key personnel area familiar with roles through regular meetings	3-6	ET/KB	90
Train Independent Evaluators to maintain 100% concordance	3-6	ET/KB	75
Train all study personnel in human use, data management, procedural issues	3-6	ET/KB	90
Milestone Achieved: Research staff trained	6		90
Milestone Achieved: Maintained trained and available Independent Evaluators throughout duration of the clinical trial	6-36		75
Subtask 2: Prepare for Study Implementation			
Develop SOPs including flow chart for all study steps, web data collection and database requirements	1-6	KB	90
Finalize assessment measurements	1-6	ET	100
Milestone Achieved: SOPs developed; web data collection established; assessment finalized	6		95
Specific Aims 1-4: (1) Examine the effectiveness of group and individual iTCBT and (2) enhanced iTCBT in improving anxiety symptoms and quality of life; (3) compare iTCBT delivered in an individual vs. group format; and (4) explore factors related to treatment non-response.			
Major Task 3: Participant Recruitment, Treatment, Participant Evaluation			
Subtask 1: Coordinate with community partners on recruitment and referral procedures			
Subtask 2: Begin participant recruitment			
Screen potential participants using QLES and BAI and consent (N=306)	7-36	KB	0
Evaluate and randomize participants to one of three conditions: (iTCBT Individual; iTCBT Group; Treatment-As-Usual)	7-36	ET	0
Milestone Achieved: 1st participant consented, screened, and enrolled	7		0
Milestone Achieved: Study begins	7		0
Subtask 3: Begin iTCBT treatment protocol			
Participants complete assigned treatment over specified timeframe – 12 treatment hours over 2 days (group) or 2 weeks (individual)	7-36	ET	0

Subtask 4: Evaluate response to treatment			
Administer BAI measure 1-week post-treatment to classify responder vs. non-responder (BAI score decrease < 10) to receive extended treatment	7-36	ET	0
Conduct extended (iTCBT-E) protocol with treatment non-responders (four additional 90-minute individual therapy sessions)	7-36	ET	0
Conduct assessments at 3- and 6-months after treatment completion for all three conditions	10-42	ET/KB	0
Evaluate and measure the effectiveness of individual and group iTCBT for service members, reservists, and veterans with anxiety and/or PTSD	7-42	ET	0
Milestone Achieved: Report findings from post-treatment, 3-month, and 6-month follow-ups	42		0
Major Task 4: Data Analysis			
Subtask 1: Clean and Prepare Data for Analyses			
Merge data from diagnostic interviews and Qualtrics into single database	7-42	KB	0
Validate data entry	42-45	KB	0
Data and safety monitoring	10-30 (quarterly)	ET	0
Subtask 2: Statistical Analyses			
Perform all analyses according to specifications, share output and finding with all investigators and community partners	45-46	ET	0
Work with team and community partners in dissemination of findings (abstracts, presentation, publications, DOD)	45-48	ET	0
Milestone Achieved: Report results from data analyses	48		0
Major Task 5: Prepare Reports and Recommendations			
Prepare annual and final reports	12, 24, 36, 48	ET/KB	25
Implement programs, guide policy	48	ET	0
Milestone: Engage partners in next steps for broader implementation and dissemination	48		0

What was accomplished under these goals?

During this first year of the project, we completed the following major activities: (1) Obtained all regulatory permissions, which includes Baylor College of Medicine (BCM) IRB protocol approval (1/3/2023), VA Research & Development approval (2/21/2023), and USAMRDC HRPO approval (4/27/2023). A subsequent amendment was submitted to BCM IRB and approved on 7/10/2023. We also registered the study through Clinicaltrials.gov. Study assessment measures were programmed to be administered electronically through Qualtrics, a platform approved by the VA Office of Research and Development. Our IRB-approved informed consent documents were successfully prepared for use through DocuSign, and research staff have been trained on DocuSign procedures. (2) Coordinate study staff for clinical trial, which includes developing and posting positions for the study. We have hired a full-time research assistant and project coordinator. We have also interviewed several candidates for a behavioral health specialist position to assist in delivering the study intervention. We replaced one of our study team members who moved to another organization with a new qualified co-investigator to assume the role of independent evaluator for the project. Our study team has completed all required trainings for data management, standard operating procedures, and human subjects research. We have held 3 quarterly meetings with our Community Advisory Board (11/8/22, 2/14/23, 8/22/23), with our Quarter 4 meeting scheduled for 11/14/23. These meetings have been productive in understanding our shared missions, incorporating feedback from our CAB in shaping study considerations for active duty and reservists in the community. Our team has further cultivated our relationship with CAB members by meeting with individuals from each organization separately to better understand how best to align our resources with the needs of the communities they serve. We are also evaluating the quality and success of our relationship with our CAB members using established measures collected at regular time points. Finally, study recruitment commenced on 9/22/23.

Based on our original timeline, we planned to initiate study recruitment in April 2023 with a target enrollment of 60 participants by the end of Sept 2023. However, we did not enroll any participants during this period due to several delays. First, the timeline associated with obtaining all regulatory approvals was extended due to the study team taking additional steps to develop standard operating procedures for crisis management among participants not enrolled in VA care. This process entailed consultations with our science officer, hospital leadership, and our CAB. Second, delays associated with establishing an active account for the study prevented the timely posting of positions and subsequent hiring and onboarding of research staff. Despite these issues, we expect to be able to narrow the recruitment gap once all study staff are hired.

What opportunities for training and professional development has the project provided?

Michael E. DeBakey VA Medical Center (MEDVAMC) in Houston, Texas is the performance site for this project. Specifically, the project is administered through the Center for Innovative Treatment of Anxiety and Stress (CITRAS), which is a clinical research program directed by the study PI, Dr. Ellen Teng. Training opportunities have been made available to doctoral-level psychology interns and postdoctoral fellows who work with Dr. Teng. The CITRAS team includes Co-Investigators Drs. Caitlin Clark and Nicole Trapp are staff psychologists who have dedicated time in CITRAS and participate in the training and supervision of trainees.

Interns and postdocs are trained in conducting psychiatric diagnostic assessments using gold-standard measures and delivering the study intervention alongside and under the direct supervision of licensed psychologists working in CITRAS. Interns and fellows receive weekly individual and group supervision with the study PI where they receive regular and ongoing feedback about their skills and development. By participating in weekly project and clinical meetings specific to this study, they can develop advanced knowledge and greater proficiency in conducting assessments and delivering behavioral interventions for PTSD and anxiety disorders. Interns and fellows who work on this project are interested in pursuing clinical research careers and benefit from the mentorship they receive from the PI and CITRAS staff. They not only learn more about being an academic clinician in a medical setting but their knowledge and skills in conducting grant-funded clinical research is significantly enhanced.

Trainees also have ample opportunities to engage in academic scholarship and community outreach. The PI provides trainees opportunities to serve as co-authors on papers and book chapters. They also are encouraged to present data at national scientific conferences and receive mentoring in professional networking. Dr. Clark is regularly invited to provide educational talks to military and civilian communities, which provides trainees opportunities to engage in important community outreach.

How were the results disseminated to communities of interest?

Nothing to report.

What do you plan to do during the next reporting period to accomplish the goals?

During the next reporting period, we will prioritize recruitment and enrollment. Currently, CITRAS receives approximately 7-8 referrals on average per week. We anticipate that we will be able to enroll about 16 participants each month and should be able to narrow the recruitment gap over about 6 months. We will also plan to request a NCE if needed to reach

our recruitment target. We will continue our quarterly meetings with our CAB and continue to brainstorm ways to expand recruitment efforts.

4. IMPACT:

What was the impact on the development of the principal discipline(s) of the project?

Nothing to report.

What was the impact on other disciplines?

Nothing to report.

What was the impact on technology transfer?

Nothing to report.

What was the impact on society beyond science and technology?

Nothing to report.

5. CHANGES/PROBLEMS:

Changes in approach and reasons for change

In addition to minor changes in our procedures (e.g., decreasing number of measures, adding brief measures at 1-week post-treatment, revising study advertisement), which were previously reported, we made some additional minor changes that have not yet been reported. This includes (1) adding the NCT study number to the protocol, (2) clarifying in the consent form that active duty service members will only receive compensation if their assessments for this study are completed when off-duty, (3) describing in the consent form the process that will be used to issue study payments, and (4) expanding accessibility of the iTCBT group treatment by offering the option of completing it over two consecutive days during the week or over a weekend. This provides participants with more options and increases access to treatment.

Actual or anticipated problems or delays and actions or plans to resolve them

Our study had a delayed start due to problems in setting up our account, which delayed the hiring of study staff. At this time, we have hired our study coordinator, research assistant, and are in the process of interviewing a candidate for our behavioral health specialist position. We initiated recruitment in Sept 2023. Based on current referral rates, we anticipate that we will be able to enroll about 16 participants each month and should be able to narrow the recruitment gap over about 6 months. We will also plan to request a NCE if needed to reach our recruitment target. Additionally, we have distributed study advertisements for social media and print materials throughout our medical facility and to community partners.

Changes that had a significant impact on expenditures

The delay in hiring study staff has resulted in less expenditures during this reporting period than expected.

Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents

Significant changes in use or care of human subjects

Nothing to Report.

Significant changes in use or care of vertebrate animals

Not applicable.

Significant changes in use of biohazards and/or select agents

Not applicable.

6. PRODUCTS:

- **Publications, conference papers, and presentations**

Nothing to Report.

- **Journal publications.**

Nothing to Report.

- **Books or other non-periodical, one-time publications.**

Nothing to Report.

- **Other publications, conference papers and presentations**.

Nothing to Report.

- **Website(s) or other Internet site(s)**

Nothing to Report.

- **Technologies or techniques**

Nothing to Report.

- **Inventions, patent applications, and/or licenses**

Nothing to Report.

- **Other Products**

Nothing to Report.

7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

What individuals have worked on the project?

Name:	Ellen Teng, PhD
Project Role:	PI
Researcher Identifier (e.g. ORCID ID):	0000-0002-9949-8755
Nearest person month worked:	2.40
Contribution to Project:	Dr. Teng is responsible for overseeing the project. She has performed work in hiring staff, developing the IRB protocol, and associated regulatory documents.
Name:	Keri Bayley, PhD
Project Role:	Project Coordinator

Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 2.40 (Starting Sept 2023: 12.0)
Contribution to Project: Dr. Bayley has performed work in assisting with preparing regulatory documents and SOPS/data collection. She also has participated in hiring and training staff.

Name: Victoria Gonzales, BA
Project Role: Research Assistant
Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 12.0 (Hired Aug 2023)
Contribution to Project: Ms. Gonzales has performed work in assisting with preparing study materials.

Name: Marilyn Hinojosa-Lindsey, PhD
Project Role: Community Liaison
Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 0.60
Contribution to Project: Dr. Hinojosa-Lindsey performed work this period in coordinating and leading our CAB meetings.
Funding Support: Michael E. DeBakey VA Medical Center

Name: Caitlin Clark, PhD
Project Role: Co-Investigator
Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 1.20
Contribution to Project: Dr. Clark performed work during this period by attending weekly meetings and trained current research team on study intervention.
Funding Support: Michael E. DeBakey VA Medical Center

Name: Liang Chen, MD
Project Role: Co-Investigator
Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 1.20
Contribution to Project: Dr. Chen performed work during this period by attending weekly meetings in preparation for study recruitment and participant randomization.

Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?

The active support for Dr. Teng (PI) has changed from the previous submission as described below:

No Longer Active:

Improving Veteran Functioning with Intensive Transdiagnostic CBT for Anxiety
03/01/2018 – 2/28/2022
2.4 calendar months
VA RR&D
1 I01RX002160-01A2
Role: Principal Investigator

Newly Active:
Increasing the Effectiveness of CBT for Anxiety in Veterans by Involving Family Members
07/01/2022 – 06/30/2024
2.4 calendar months
VA RR&D
I21RX003863-01A1
Role: Principal Investigator

Exposure and Response Prevention to Improve Functioning in Veterans with Obsessive Compulsive Disorder
06/01/2022 – 05/31/2026
1.2 calendar months
VA RR&D
I01RX003677-01A2
Role: Co-I

Newly Funded Studies:
Personalizing Cognitive Processing Therapy with a Case Formulation Approach to Intentionally Target Impairment in Psychosocial Functioning Associated with PTSD
09/30/2020 – 08/31/2024
1.2 calendar months
VA RR&D
I01RX003369-01A1
Role: Site PI

New Pending Study:
Implementation of Innovative Treatment for Moral Injury Syndrome: A Hybrid Type 2 Study
06/1/2023 – 05/31/2027
2.4 calendar months
VA HSR&D
IIR 22-132
Role: Site PI

What other organizations were involved as partners?

Organization Name: Michael E. DeBakey VA Medical Center
Location of Organization: Houston, TX
Partner's contribution to the project: Collaboration, Facilities

Organization Name: Gulf Coast Center
Location of Organization: Houston, TX
Partner's contribution to the project: Community Advisory Board

Organization Name: Easter Seals of Greater Houston
Location of Organization: Houston, TX
Partner's contribution to the project: Community Advisory Board

Organization Name: Combined Arms
Location of Organization: Houston, TX
Partner's contribution to the project: Community Advisory Board

8. SPECIAL REPORTING REQUIREMENTS

COLLABORATIVE AWARDS: N/A

QUAD CHARTS: Attached

9. APPENDICES: N/A