# Examination of a Safety Aid Reduction Protocol for Treatment-Resistant PTSD Among Veterans

Protocol

Funding Agency: Office of Research & Development

NCT number: NCT04515784

Department of Veterans Affairs

Principal Investigator: Amanda M. Raines, Ph.D.

Updated: September 7, 2026

List of Abbreviations

AEs: Adverse Events
BAI: Beck Anxiety Inventory
BDI-II: Beck Depression Inventory-II
CAPS-5: Clinician Administered PTSD Scale for *DSM-5*
CPT: Cognitive Processing Therapy
CSQ-8: Client Satisfaction Questionnaire-8
CSR&D: Clinical Science Research and Development
CSRE: Comprehensive Suicide Risk Evaluation
C-SSRS: Columbia Suicide Severity Rating Scale Screener
DMC: Data Monitoring Committee
DUAs: Data Use Agreements
EBPs: Evidence-based Psychotherapies
ED: Emergency Department
ICD: Informed Consent Document
IRB: Institutional Review Board
ITT: Intent-to-treat
LMM: Linear Mixed Model
MAR: Missing at random
MCAR: Missing completely at random
MINI: Mini International Neuropsychiatric Interview
MOUs: Memoranda of Understandings
NARA: National Archives and Records Administration
OHRP: Office of Human Research Protection
ORO: Office of Research Oversight
PCL-5: Posttraumatic Checklist for *DSM-5*
PE: Prolonged Exposure
PHI: Protected Health Information
PI: Principal Investigator
PII: Personally Identifiable Information
PTCI: Posttraumatic Cognitions Inventory
PTSD: Posttraumatic Stress Disorder
R&D: Research and Development
RCO: Research Compliance Officer
RCS: Records Control Schedule
REML: Restricted Maximum Likelihood
SAEs: Serious Adverse Events
SBAF: Safety Behavior Assessment Form
SDS: Sheehan Disability Scale
SLVHCS: Southeast Louisiana Veterans Health Care System
SOP: Standard Operating Procedures
SRA: Suicide Risk Assessment
SSN: Social Security Number
START-PTSD: Safety Aid Reduction Treatment for PTSD
UPs: Unanticipated problems
VA: Veterans Administration
VHA: Veterans Health Administration

## Contents

Protocol Title: Examination of a Safety Aid Reduction Protocol for Treatment-Resistant PTSD Among Veterans ..... **Error! Bookmark not defined.**
1.0 Study Personnel ..... 4
2.0 Introduction ..... 4
3.0 Objectives ..... 4
4.0 Resources and Personnel ..... 4
5.0 Study Procedures ..... 5
5.1 Study Design ..... 5
5.2 Recruitment Methods ..... 7
5.3 Informed Consent Procedures ..... 7
5.4 Inclusion/Exclusion Criteria ..... 8
5.5 Study Evaluations ..... 8
5.6 Data Analysis ..... 11
5.7 Withdrawal of Subjects ..... 12
6.0 Reporting ..... 12
7.0 Privacy and Confidentiality ..... 13
8.0 Communication Plan ..... 13
9.0 References ..... 15

## 1.0 Study Personnel

Principal Investigator (PI): Amanda M. Raines, Ph.D., Clinician Investigator, Southeast Louisiana Veterans Health System (SLVHCS), 2400 Canal St., New Orleans, LA 70119, (504) 507-2000 ext. 67372, amanda.raines@va.gov.

Research Coordinator: Jessica L. Chambliss, M.S., CRC, Program Specialist, SLVHCS, 2400 Canal St., New Orleans, LA 70119, (504) 507-2000 ext. 65195, jessica.chambliss@va.gov.

## 2.0 Introduction

Rates of posttraumatic stress disorder (PTSD) among military personnel have surged in recent years (Fulton et al., 2015). In response, the Department of Veterans Affairs (VA) has launched nationwide training initiatives to disseminate two PTSD treatments with strong empirical support: prolonged exposure (PE) therapy and cognitive processing therapy (CPT). Despite the well-documented effectiveness of PE and CPT (Monson et al., 2006; Powers, Halpern, Ferenschak, Gillihan, & Foa, 2010), only a minority of Veterans with PTSD initiate these trauma-focused treatments (Mott et al., 2014; Rosen et al., 2019). One approach to addressing PTSD in a non-trauma focused fashion is to utilize empirically supported treatments focused on safety aid reduction. Safety aids are maladaptive cognitive and/or behavioral strategies designed to prevent, avoid, or alleviate anxiety (Salkovskis, 1991). Initially introduced as a way to explain how pathological anxiety can persist despite repeated exposure to feared stimuli, safety aids have been found to play a critical role in the etiology and maintenance of various anxiety and related conditions including PTSD (Dunmore, Clark, and Ehlers 1999; Ehring, Ehlers, and Glucksman, 2008). Importantly, a separate line of research suggests that safety aids are amenable to change through cognitive behavioral interventions (Riccardi, Korte, & Schmidt, 2016; Schmidt et al., 2012). While promising, these trials did not include patients with PTSD. In this context, the purpose of this project is to examine the acceptability, feasibility, and utility of a safety aid reduction treatment (START) for PTSD (START-PTSD). Participants will include Veterans with a diagnosis of PTSD who decline to participate in evidence-based psychotherapies (EBPs) for PTSD, namely PE or CPT.

## 3.0 Objective(s)

Assess acceptability, feasibility, and utility of START-PTSD. START-PTSD will be piloted for acceptability, feasibility, and utility. It is hypothesized that START-PTSD will be acceptable and feasible and lead to reductions in PTSD symptom severity.

## 4.0 Resources and Personnel

All assessment and treatment sessions will be conducted by the PI and Research Coordinator and will occur in a dedicated research office in outpatient mental health.

The PI will oversee all aspects of the project including coordinating the Institutional Review Board (IRB) submission; subject recruitment; subject enrollment including obtaining informed consent; conducting diagnostic interviews; administering surveys; delivery of the treatment protocol; data collection and entry; and data analysis. As such, the PI will have access to personally identifiable information (PII) and protected health information (PHI).

The Research Coordinator will assist with subject recruitment; subject enrollment including obtaining informed consent; administering surveys; and data collection and entry. As such, they will have access to PII and PHI.

No services will be performed by contractors. Further, no Memoranda of Understandings (MOUs) or Data Use Agreements (DUAs) are being entered into.

## 5.0 Study Procedures

### 5.1 Study Design

Approximately 50 Veterans will be recruited to take part in a one-arm group-based treatment trial. Veterans will be assessed pre- and post-intervention as well as at a one-month follow-up.

Timepoints

Baseline Appointment**.** During the baseline assessment, Veterans will first go through an informed consent process. Those who provide written consent will then complete two diagnostic interviews, a brief battery of self-report questionnaires via paper and pencil, and a suicide risk assessment (see Study Evaluation Section). Following this, eligible Veterans will be provided with the day and time of the START-PTSD group, which will be initiated after six to eight eligible Veterans have given informed consent. Of note, group size may vary slightly to avoid Veterans having to wait more than four weeks to begin treatment. Ineligible Veterans will be referred back to their referring PTSD clinician for further treatment planning outside of the study.

Post-Appointment. Immediately upon completion of the intervention, Veterans will be asked to repeat the baseline battery of self-report questionnaires via paper and pencil (see Study Evaluation Section) to allow for assessment of symptom change. Further, to ensure continued patient safety, suicide risk will also be reassessed (see Study Evaluation Section). In particular, Veterans will complete a suicide risk assessment screener via paper and pencil. These forms will be collected and reviewed by the PI. Any individual screening positive will be asked to stay behind to complete a more comprehensive assessment with the PI or other staff as needed.

One-month Appointment. Veterans will return to SLVHCS one-month post-intervention to complete a follow-up assessment which includes an assessment of suicide risk consistent with procedures above (see Study Evaluation Section). In addition to repeating the battery of self-report questionnaires via paper and pencil (see Study Evaluation Section), Veterans will be reassessed for PTSD diagnostic status and symptom severity using the past month Clinician Administered PTSD Scale for *DSM-5* (CAPS-5). Veterans who still meet diagnostic criteria for PTSD or Other Specified Trauma- and Stressor-Related Disorder will be referred back to their referring PTSD clinician for further treatment planning outside of the study.

Treatment

START-PTSD. START-PTSD is a 10-session group-based treatment, delivered once weekly over the course of 10 weeks, with each session lasting approximately 60 minutes. Consistent with the original treatment protocol, START-PTSD includes many of

the key elements found in empirically supported treatments for anxiety including: 1) psychoeducation; and 2) exposure to feared stimuli via the identification and elimination of safety aids. Safety aids covered in treatment include checking behaviors (e.g., checking doors, windows, locks, and perimeters more often than necessary), situational avoidance (e.g., avoiding crowded stores), cognitive avoidance (e.g., using mental distractions to avoid trauma-related images), physiological avoidance (e.g., avoiding certain content due to physiological sensations), use of companions (e.g., relying on someone to attend a social gathering), and use of alcohol and certain substances (e.g., consuming alcohol to reduce anxiety). During the initial educational phase of treatment (i.e., sessions 1 through 3), PTSD will be introduced as a common reaction to traumatic events that develops as a result of negative appraisals regarding the trauma (e.g., "The world is a dangerous place" in response to combat) and/or its sequelae (e.g., "I am going mad" in response to flashbacks). Patients will learn that changes in negative appraisals are prevented through a series of maladaptive cognitive and/or behavioral strategies also known as safety aids. Safety aids are defined as actions, both obvious (e.g., avoiding a crowded marketplace) and subtle (e.g., thought suppression), that the patient engages in to prevent or minimize further catastrophes. Although useful in the short-term for reducing anxiety, the use of such behaviors in the long-term contributes to the development and maintenance of PTSD. Throughout sessions four through nine, patients will be taught to monitor and track their use of the aforementioned safety aids, as well as taught specific strategies to fade out their use of these safety aids. Finally, the last session (session 10) will involve a review of skills learned throughout treatment. Time will also be spent dispelling myths about recovery (e.g., "I should never be anxious again") and factors that contribute to relapse (e.g., adopting new safety aids). All treatment sessions will be delivered by the PI.

Risks

Risk Associated with Assessments/Treatment: Associated risks to human subjects in the proposed study are minimal. Nevertheless, Veterans may experience some emotional discomfort when asked to think about mental health symptoms and mental health history and when completing the assessments, but no more so than what is common during psychological treatment. The distress and/or discomfort related to these procedures are usually temporary and well tolerated. Moreover, some aspects of the treatment, including exposure to feared situations (e.g., crowded stores), may elicit moderate levels of distress or discomfort for some subjects initially. However, the distress and/or discomfort related to the study procedures are usually temporary and well tolerated. Veterans will be told that if, at any point, they experience significant distress as a result of their participation that marks a worsening of any current symptoms, they should contact the PI and/or project staff. The PI will ensure that appropriate mental health care and follow-up care is provided.

Risk Associated with Confidentiality: There is minimal risk due to the possibility of a breach of confidentiality in regards to the collection, storage, and maintenance of data being collected. All assessment and treatment sessions will occur in a private office dedicated to research in outpatient mental health. Further, all subjects will be assigned a unique identification code. This code will be used on all relevant study materials. The master list linking the ID with PII (e.g., name and telephone number) will be password protected and stored separately and maintained on a secure VA server (behind the VA firewall) on a research network drive that can only be accessed via a password protected computer. Only the PI and study staff who have had appropriate training with

regard to subject privacy, confidentiality, and information security will have access to the master list. The only hardcopy data containing PII will be the informed consent documents (ICD), which include the patient's name and last four digits of their social security number (SSN). The ICDs will be stored separately in the PI's locked office in a locked cabinet, to which only the PI and Research Coordinator will have a key. All other hardcopy data collected (e.g., self-report questionnaires) will not have sensitive information such as PII and/or other PHI. All electronic data will be stored on a secure VA server (behind the VA firewall) on a research network drive that can only be accessed via a password protected computer. Only SLVHCS study personnel, who are approved by the SLVHCS IRB to work on the study and have completed the required VA trainings in data privacy and information security rules of behavior, will have access to the data. Further, all study personnel will only have access to the minimum information necessary to complete the study. There are no plans to disclose data outside of the VA. However, if there is a need to disclose data outside of the VA, IRB approval will be sought, data will be de-identified prior to disclosing, and the disclosure will be recorded on a VA disclosure log as required by VA policy.

### 5.2 Recruitment Methods

The PI and the Research Coordinator will meet with clinicians on the PTSD Team and provide them with a detailed description of the project including inclusion and exclusion criteria as well as contact information for relevant study personnel. Following an intake in the PTSD clinic, all Veterans are required to attend a treatment planning session where they are offered PE or CPT, per VHA Handbook 1160.01, Uniform Mental Health Services in VA Medical Centers and Clinics. Veterans who refuse these trauma-focused treatments will be given verbal information about the study by their PTSD clinician during this treatment planning session. Veterans who express interest in the study will be contacted by the PI or Research Coordinator, who will schedule them for a baseline appointment that includes informed consent procedures.

The baseline assessment will take approximately 90 minutes to complete. Immediately upon completion, Veterans will be compensated $75 for their time and travel via a study-related voucher. The post-intervention appointment will take approximately 60 minutes to complete. Immediately upon completion, Veterans will be compensated $50 for their time and travel via a study-related voucher. Finally, the one-month follow-up assessment will take approximately 90 minutes to complete. Immediately upon completion, Veterans will be compensated $75 for their time and travel via a study-related voucher.

### 5.3 Informed Consent Procedures

Veterans will go through an informed consent process with the PI and/or Research Coordinator. Veterans will be provided with all the information necessary to make an informed decision about participating in the proposed project. This includes an explanation and description of the: 1) purpose of research; 2) expected duration of participation; 3) procedures; 4) foreseeable risks and discomforts; 5) expected benefits to subject and others; 6) appropriate alternatives; 7) extent of confidentiality; 8) number of subjects being recruited; 9) compensation; 10) contact information for relevant personnel; 11) voluntary nature of participation; 12) additional cost to subjects; and 13) subject termination. Veterans will be given the opportunity to ask questions and will be allowed ample time to consider participation prior to providing consent. Further,

the PI and Research Coordinator will ensure that the Veteran understands all information and that they may discontinue participation at any time, for any reason, without penalty.

The PI will ensure that all study personnel responsible for participant enrollment, including obtaining informed consent, have completed all the required trainings. Additionally, an in-service to provide instruction on completing the informed consent process for the current study will be conducted with study staff.

### 5.4 Inclusion/Exclusion Criteria

To be eligible for inclusion, Veterans must have a PTSD diagnosis and have declined current trauma-focused treatments for PTSD, namely PE or CPT. Veterans will be excluded if they are currently dependent upon substances and in immediate need of detoxification, are actively psychotic, are suffering from uncontrolled bipolar disorder (i.e., not stable on medications), or deemed to be high risk for suicide. Also, due to the potential confounding effects of other forms of treatment, Veterans currently receiving psychotherapy or who are not stable on their psychotropic medications (i.e., new medication or changes in dosage within the month prior to study enrollment) will be excluded. Of note, Veterans deemed to be ineligible for the study based on high risk status will not be followed by the PI. Should a Veteran who is deemed ineligible for the study based on high risk status be referred back to the study at a later date upon stabilization, he/she will be reassessed to determine current eligibility.

### 5.5 Study Evaluations

Approximately 50 Veterans will be recruited to take part in a one-arm group-based treatment trial. Veterans will be assessed pre- and post-intervention as well as at a one-month follow-up.

Clinician Administered PTSD Scale for *DSM-5* (CAPS-5). The CAPS-5, considered the gold standard in PTSD assessment, is a 30-item clinician-administered interview designed to assess current (i.e., past month) and lifetime PTSD diagnostic status (Weathers, Blake, et al., 2013). For each item, standardized questions and probes are provided. In addition to assessing the 20 *DSM-5* PTSD symptoms, the CAPS-5 contains questions regarding the onset and duration of symptoms, associated impairment in various life domains, and specifications for the dissociative subtype. Previous research has demonstrated that the CAPS-5 is a reliable and valid diagnostic tool. The past month CAPS-5 will be administered at baseline by the PI or the Research Coordinator to determine PTSD diagnostic status necessary for study inclusion. In addition, the past month CAPS-5 will be administered one-month post-intervention to assess treatment-related changes in PTSD diagnostic status and symptom severity.

Mini International Neuropsychiatric Interview (M.I.N.I.). The M.I.N.I. is a brief structured diagnostic interview for the *DSM-5*. It consists of standardized close-ended questions to assess major Axis I conditions. Diagnoses will be made according to the number of affirmative replies. Previous research has demonstrated that the M.I.N.I. is both a reliable and valid diagnostic tool (Tolin et al., 2016). The M.I.N.I. will be administered at baseline by the PI or the Research Coordinator to identify the presence of an exclusionary diagnosis as well as for descriptive purposes.

Demographic Questionnaire. A questionnaire will be developed to collect basic demographic data including Veteran's age, sex, race, and ethnicity. Further, basic military related variables will be ascertained including military branch, war zone(s) served in, and number of deployments.

Beck Anxiety Inventory (BAI). The BAI is a 21-item self-report questionnaire designed to assess the experience of anxiety symptoms (A. T. Beck & Steer, 1993). Veterans will be asked to rate how often they experience each symptom on a four-point Likert-type scale ranging from zero (*Not at all*) to three (*Severely*). The BAI has strong psychometric properties (A. T. Beck, Epstein, Brown, & Steer, 1988) and will be administered at all timepoints to allow for assessment of treatment-related changes in anxiety symptoms.

Beck Depression Inventory-II (BDI-II). The BDI-II is a 21-item self-report questionnaire designed to assess symptoms associated with depression (A. T. Beck, Steer, & Brown, 1996). Using a four-point Likert-type scale ranging from zero to three, Veterans will be asked to select the statement from a group of statements that best represents how they have felt over the last two weeks. The BDI-II has strong psychometric properties (A. T. Beck, Steer, & Carbin, 1988) and will be administered at all timepoints to allow for assessment of treatment-related changes in depression symptoms.

Client Satisfaction Questionnaire-8 (CSQ-8). The CSQ-8 is an eight-item self-report questionnaire designed to assess overall satisfaction with treatment services (Larsen, Attkisson, Hargreaves, & Nguyen, 1979). Although response options differ from item to item, all questions are rated on a four-point Likert-type scale with higher values indicating higher satisfaction. The CSQ-8 appears to have strong psychometric support (Attkisson & Zwick, 1982) and will be administered at post-intervention to allow for assessment of treatment acceptability.

Posttraumatic Cognitions Inventory (PTCI). The PTCI is a 33-item self-report questionnaire designed to assess trauma-related thoughts and beliefs including negative cognitions regarding the self, others, and the world (Foa, Ehlers, Clark, Tolin, & Orsillo, 1999). Veterans will be asked to read a list of statements and indicate the degree to which they agree or disagree with each statement using a seven-point Likert-type scale ranging from one (*totally disagree*) to seven (*totally agree*). The PTCI has strong psychometric properties (J. G. Beck et al., 2004) and will be administered at all timepoints to allow for assessment of treatment-related changes in PTSD cognitions.

PTSD Checklist for *DSM-5* (PCL-5). The PCL-5 is a 20-item self-report questionnaire designed to assess each of the 20 *DSM-5* PTSD symptoms (Blevins, Weathers, Davis, Witte, & Domino, 2015). For each symptom, Veterans will provide a severity rating ranging from zero (*Not at all*) to four (*Extremely*). In addition to a total score, the PCL-5 yields four subscales reflecting each of the four PTSD symptom clusters. The PCL-5 has strong psychometric properties (Bovin et al., 2015) and will be administered at all timepoints to allow for assessment of treatment-related changes in PTSD symptoms.

Safety Behavior Assessment Form (SBAF). The SBAF is a 41-item self-report questionnaire designed to assess safety behavior usage (Goodson et al., 2016). Veterans will be asked to read a list of behaviors and rate how often they engage in each behavior using a four-point Likert-type scale ranging from zero (*Never*) to three (*Always*). The SBAF has strong psychometric properties (Goodson et al., 2016) and will

be administered at all timepoints to allow for assessment of treatment-related changes in safety aid use.

Sheehan Disability Scale (SDS). The SDS is a three-item self-report questionnaire designed to assess functional impairment of symptomology on work, social, and family functioning (Sheehan, Harnett-Sheehan, & Raj, 1996). For each domain, Veterans will provide an impairment rating ranging from zero (*Not at all*) to 10 (*Extremely*). The SDS has strong psychometric properties (Sheehan et al., 1996) and will be administered at all timepoints to allow for assessment of treatment-related changes in global life domains.

Suicide Risk Assessment (SRA). Suicide risk assessment procedures at all timepoints will follow the standardized process for screening and evaluation set forth by the Veterans Health Administration Office of Mental Health and Suicide Prevention. Based on the minimum requirements by setting, Veterans will begin by completing the Columbia Suicide Severity Rating Scale (C-SSRS) Screener. The C-SSRS Screener, which was adapted from the full version of the C-SSRS, consists of three to eight questions that specifically query about suicidal thoughts and behaviors. Veterans will be asked to answer questions regarding the severity of suicidal ideation and suicidal behavior, such as wish to die, suicidal thoughts without intent, suicidal thoughts with specific plan and intent, and recent preparatory behavior or suicide attempt. Recent research has supported the use of the C-SSRS screener as a major component of an overall suicide screening strategy across various care settings. Veterans who screen positive on the C-SSRS will complete the Comprehensive Suicide Risk Evaluation (CSRE) with the study PI, who is also a licensed Clinical Psychologist, or another licensed independent provider as needed. Current level of risk and necessary actions will follow the Therapeutic Risk Management Risk Stratification Table.

Based on the CSRE, Veterans who are deemed to be at high acute risk and requiring hospitalization will be handled by the PI following local procedures and considered ineligible or withdrawn depending on time of assessment. Specifically, for Veterans seen in person, the PI will notify the Veteran's referring PTSD clinician and the clinic RN manager who will alert VA police to escort the patient to the onsite emergency department (ED). The PI will then notify the ED of the Veteran's pending arrival and complete the local Physician Emergency Certificate form. For Veterans assessed via telephone who are deemed to be at high acute risk and requiring hospitalization, the PI will notify VA police who will contact local police to conduct a welfare check. The PI will attempt to remain on the phone with the Veteran until police arrive, at which point PI will notify the Veterans referring provider.

Based on the CSRE, Veterans deemed to be at high chronic risk requiring routine follow-up and screening will also be initially handled by the PI following local procedures and considered ineligible or withdrawn depending on the time of assessment. Specifically, the PI will create a well-articulated safety plan with the Veteran including means safety and refer the Veteran back to their referring PTSD clinician.

Based on the CSRE, Veterans deemed to be at intermediate acute risk or intermediate chronic risk will not be excluded based on this criterion alone but will be assessed at all study timepoints (baseline, post, and one-month follow-up) to determine if a change in level of care is required. The PI will create a well-articulated safety plan including means safety with all Veterans at this risk stratification level and review it at each subsequent assessment thereafter.

Based on the C-SSRS or CSRE, Veterans deemed to be at low acute risk or low chronic risk will be handled by the PI following local procedures. Although these individuals do not require a safety plan, they will be provided with information regarding local and national suicide resources (e.g., CRISIS Line number).

Finally, all Veterans enrolled into the study, regardless of initial risk stratification, will be re-evaluated as clinically indicated.

### 5.6 Data Analysis

Data will first be inspected for entry errors, outliers, missingness, and normality. Missing data will be evaluated using the Little (1988) Missing Completely at Random (MCAR) test, wherein a statistically significant value indicates that the data are not missing completely at random (that is, data are missing systematically). Treatment feasibility and acceptability data will then be calculated. Next, prior to examining treatment effectiveness, Cronbach's alpha and item-total correlations will then be used to examine the reliability and internal consistency of all self-report questionnaires. Next, means, standard deviations, and zero-order correlations for all self-report measures will be examined. Following this, baseline differences in basic demographic (i.e., age, sex, race) and psychological variables (i.e., PCL-5, BAI, BDI-II) between treatment completers and non-completers will be examined using Chi-Square tests for independence for dichotomous variables and independent samples *t*-tests for continuous variables. Treatment completion is defined as completing a minimum of six out of 10 treatment sessions (i.e., 60% of treatment). This benchmark was selected based on previous treatment research (Gortner, Gollan, Dobson, & Jacobson, 1998; Jacobson et al., 1996). To assess treatment effectiveness, linear mixed models (LMMs) will be conducted with measurement occasion as a fixed effect. LMMs were selected over other statistical approaches given the ability of such methods to handle repeated measures and missing data without involving listwise deletion. That is, LMM uses all available data from patients. Models for all primary and secondary outcomes will be estimated using Restricted Maximum Likelihood (REML), which provides less biased estimates of variance components. Of note, given the feasibility nature of the current project, a formal power analysis was not conducted. As statistical significance is not the primary expectation, Cohen's *d* values will be reported to contextualize the magnitude and precision of findings using the following guidelines: values at or above .20 = small, .50 = medium, and .80 = large.

Missing Data. An intent-to-treat (ITT) approach will be used, including all eligible participants who complete the baseline appointment. Missing data in the full analysis set will occur if participants discontinue treatment prior to the end of the study or do not complete an outcome measure. Participants will not be discontinued from the study because of non-adherence (i.e., not completing post-intervention surveys) and all will remain in the study unless consent is withdrawn or if there are concerns regarding participant safety. Several approaches will be undertaken to better understand the exact mechanisms for missing data. Little's MCAR test will be applied to all final models to determine whether data can be considered MCAR (Little, 1988). Further, the results of analyses using study completers will be compared with results using the ITT approach to test sensitivity of study conclusions to study discontinuations. Baseline differences will also be explored between treatment completers and those that discontinue across study and demographic variables. If baseline differences are detected, these covariates will

then be included in the final model as auxiliary variables to improve the plausibility of assuming data is MAR (Enders, 2010). Of note, every attempt will be made to contact Veterans who discontinue to determine reasons for dropout as this information could be useful for further refining the treatment protocol or its delivery. In particular, per VHA Directive 1230 and 1232(1) Minimum Scheduling Effort Required for Outpatient Appointments, “four attempts including three attempts to contact by telephone on three separate days plus one outreach letter (sent at any time)” will be made to reach Veterans.

All analyses will be conducted by the PI on a VA password protected computer which contains all the necessary software to analyze data.

### 5.7 Withdrawal of Subjects

The investigators of the research may have to withdraw a subject without his/her consent under the following circumstances: 1) If a Veteran does not follow the treatment plan (like attending the sessions) and the investigators are unable to contact him/her to reschedule or; 2) if a physical health complication impedes the Veterans ability to participate or; 3) if the Veteran experiences a study-related injury or; 4) if the Veteran’s symptoms and suicide risk significantly worsen requiring immediate attention (i.e., hospitalization). The PI will make every effort to attempt to notify the Veteran in-person if they are withdrawn and will work with the Veterans’ mental health care providers to find alternate care where necessary.

Veterans will be told that they may voluntarily withdraw from the study at any time. If they decide not to participate in the research there will be no penalty or loss of benefits to which they are otherwise entitled. If they choose to participate but later change their mind, Veterans may withdraw at any time. They can do so by notifying the PI or Research Coordinator or by notifying their mental health care provider/referring PTSD clinician. There are no risks to early withdrawal from this protocol.

## 6.0 Reporting

All unanticipated serious adverse events (SAEs), unanticipated problems (UPs), and unanticipated Adverse Events (AEs) involving risk to subjects and or others will be reported to the SLVHCS IRB according to the IRB’s local Standard Operating Procedures (SOP) and in accordance with timelines outlined in Veterans Health Administration (VHA) Handbook 1058.01. In addition, unanticipated SAEs, UPs, and unanticipated AEs will be reported to the Data Monitoring Committee (DMC) within 72 hours of the PI becoming aware of the event using the UP Report form and Clinical Science Research and Development (CSR&D) Monitoring Committee Progress Report form. All anticipated SAEs, will be recorded on an AE log which will be submitted for review by the IRB at the time of continuing review or sooner at the IRB’s request. The PI will meet regularly with the Research Coordinator to review and discuss the log. Action will be taken when necessary to protect subjects from harm, and the protocol and other applicable study documents will be amended as needed. This protocol, and any subsequent modifications, will be reviewed and approved by the SLVHCS IRB, Research and Development (R&D), and DMC prior to implementation.

The study may be modified or discontinued at any time by the IRB, Office of Human Research Protection (OHRP), and/or other government agencies as part of their duties to ensure protection of subjects participating in the research.

## 7.0 Privacy and Confidentiality

The use of PHI, namely Veterans' names, last four of SSNs, and telephone numbers, is necessary to conduct the study but will be safeguarded to the maximum extent possible. Specifically, all subjects will be assigned a unique identification code. This code will be used on all relevant study materials. The master list linking the ID with PII (e.g., name and telephone number) will be password protected and stored separately and maintained on a secure VA server (behind the VA firewall) on a research network drive that can only be accessed via a password protected computer. Only the PI and study staff who have had appropriate training with regard to subject privacy, confidentiality, and information security will have access to the master list. The only hardcopy data containing PII will be the ICD, which include the patient's name and last four digits of their SSN. The ICDs will be stored separately in the PI's locked office in a locked cabinet, to which only the PI and Research Coordinator will have a key. All other hardcopy data collected (e.g., self-report questionnaires) will not have sensitive information such as PII and/or other PHI. All electronic data will be stored on a secure VA server (behind the VA firewall) on a research network drive that can only be accessed via a password protected computer.

Only SLVHCS study personnel, who are approved by the SLVHCS IRB to work on the study and have completed the required VA trainings in data privacy and information security-rules of behavior, will have access to the data. Further, all study personnel will only have access to the minimum information necessary to complete the study. There are no plans to disclose data outside of the VA, however, if there is a need to disclose data outside of the VA, IRB approval will be sought, data will be de-identified prior to disclosing, and the disclosure will be recorded on a VA disclosure log as required by VA policy. Once the study has ended, all paper and electronic data will be stored and maintained according to approved National Archives and Records Administration (NARA) disposition instructions that are published in VHA Records Control Schedule (RCS) 10-1 per the VHA Handbook 1200.56. Furthermore, all hardcopies will be destroyed using a VA owned standard shredding container bin that follows the rules and regulations of secure disposal methods. Clinical information will not be released, except as necessary for monitoring by the SLVHCS IRB, Research Compliance Officer (RCO), the VA Office of Research Oversight (ORO), and the OHRP.

## 8.0 Communication Plan

The PI will review the protocol with study staff prior to beginning work on the study, and ensure no questions or misunderstanding of the protocol will preclude study staff from conducting the study protocol exactly as approved. All necessary protocol modifications will be submitted for review and approved by the IRB, R&D, and DMC prior to implementation. The PI will meet regularly with study staff to discuss any issues/concerns that should arise during the conduct of the research including how to monitor for unanticipated SAEs, UPs, and AEs. Study personnel will be responsible for informing the PI of any adverse events, at which time the PI will collect information in order to document the event and any resulting consequence for immediate referral to the

SLVHCS IRB, funding sponsor, and OHRP. All unanticipated or SAEs, UAPs, and protocol deviations will be recorded and reported to the SLVHCS VA IRB according to the IRB's local SOPs and in accordance with timelines outlined in VHA Handbook 1058.01. In addition, unanticipated SAEs, UPs, and unanticipated AEs will be reported to the DMC within 72 hours of the PI becoming aware of the event using the UP Report form and CSR&D Monitoring Committee Progress Report form.

Subjects participating in the research will be given contact numbers to call if they should have any research-related questions and/or complaints as well as a customer service representative contact and IRB office number should they wish to speak to someone outside of the research study. The PI will instruct study staff to document any subject issues/complaints so the PI can follow-up with the subject. All events will be reported according to VA regulations in the required timelines. Subjects will be instructed to call 911 or seek the nearest emergency department if a research-related injury should occur.

## 9.0 References


Attkisson, C. C., & Zwick, R. (1982). The Client Satisfaction Questionnaire: Psychometric properties and correlations with service utilization and psychotherapy outcome. *Evaluation and Program Planning, 5(3),* 233-237.

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology, 56*(6), 893-897.

Beck, A. T., & Steer, R. (1993). Beck anxiety inventory manual. San Antonio, TX: The Psychological Corporation. In: Harcourt Brace & Company.

Beck, A. T., Steer, R. A., & Carbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review, 8*(1), 77-100.

Beck, J. G., Coffey, S. F., Palyo, S. A., Gudmundsdottir, B., Miller, L. M., & Colder, C. R. (2004). Psychometric Properties of the Posttraumatic Cognitions Inventory (PTCI): A replication with motor vehicle accident survivors. *Psychological Assessment, 16*(3), 289-298.

Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5): Development and Initial Psychometric Evaluation. *Journal of Traumatic Stress, 28*(6), 489-498.

Bovin, M. J., Marx, B. P., Weathers, F. W., Gallagher, M. W., Rodriguez, P., Schnurr, P. P., & Keane, T. M. (2015). Psychometric Properties of the PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (PCL-5) in Veterans. *Psychological Assessment, 28*(11), 1379-1391.

Dunmore, E., Clark, D. M., & Ehlers, A. (1999). Cognitive factors involved in the onset and maintenance of posttraumatic stress disorder (PTSD) after physical or sexual assault. *Behaviour Research and Therapy, 37*(9), 809-829.

Ehring, T., Ehlers, A., & Glucksman, E. (2008). Do cognitive models help in predicting the severity of posttraumatic stress disorder, phobia, and depression after motor vehicle accidents? A prospective longitudinal study. *Journal of Consulting and Clinical Psychology, 76*(2), 219-230.

Enders, C. K. (2010). *Applied missing data analysis:* Guilford press.

Foa, E. B., Ehlers, A., Clark, D. M., Tolin, D. F., & Orsillo, S. M. (1999). The posttraumatic cognitions inventory (PTCI): Development and validation. *Psychological Assessment, 11*(3), 303-314.

Fulton, J. J., Calhoun, P. S., Wagner, H. R., Schry, A. R., Hair, L. P., Feeling, N., .. . Beckham, J. C. (2015). The prevalence of posttraumatic stress disorder in Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) Veterans: A meta-analysis. *Journal of Anxiety Disorders, 31,* 98-107.

Goodson, J. T., Haeffel, G. J., Raush, D. A., & Hershenberg, R. (2016). The Safety Behavior Assessment Form: Development and Validation. *Journal of Clinical Psychology, 72*(10), 1099-1111.

Gortner, E. T., Gollan, J. K., Dobson, K. S., & Jacobson, N. S. (1998). Cognitive-behavioral treatment for depression: Relapse prevention. *Journal of Consulting and Clinical Psychology, 66*(2), 377-384.

Jacobson, N. S., Dobson, K. S., Truax, P. A., Addis, M. E., Koerner, K., Gollan, J. K.,.. . Prince, S. E. (1996). A component analysis of cognitive-behavioral treatment for depression. *Journal of Consulting and Clinical Psychology, 64*(2), 295-304.

Larsen, D. L., Attkisson, C. C., Hargreaves, W. A., & Nguyen, T. D. (1979). Assessment of client/patient satisfaction: development of a general scale. *Evaluation and program planning*, *2*(3), 197-207.

Little, R. J. A. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association, 83*(404), 1198-1202.

Monson, C. M., Schnurr, P. P., Resick, P. A., Friedman, M. J., Young-Xu, Y., & Stevens, S. P. (2006). Cognitive processing therapy for veterans with military-related posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology, 74*(5), 898-907.

Mott, J. M., Mondragon, S., Hundt, N. E., Beason-Smith, M., Grady, R. H., & Teng, E. J. (2014). Characteristics of US veterans who begin and complete prolonged exposure and cognitive processing therapy for PTSD. *Journal of Traumatic Stress, 27*(3), 265-273.

Powers, M. B., Halpern, J. M., Ferenschak, M. P., Gillihan, S. J., & Foa, E. B. (2010). A meta-analytic review of prolonged exposure for posttraumatic stress disorder. *Clinical Psychology Review, 30*(6), 635-641.

Riccardi, C. J., Korte, K. J., & Schmidt, N. B. (2016). False Safety Behavior Elimination Therapy: A randomized study of a brief individual transdiagnostic treatment for anxiety disorders. *Journal of Anxiety Disorders, 46,* 35-45.

Rosen, C. S., Bernardy, N. C., Chard, K. M., Clothier, B., Cook, J. M., Crowley, J.,. .. Noorbaloochi, S. (2019). Which patients initiate cognitive processing therapy and prolonged exposure in department of veterans affairs PTSD clinics? *Journal of Anxiety Disorders, 62,* 53-60.

Salkovskis, P. M. (1991). The importance of behaviour in the maintenance of anxiety and panic: A cognitive account. *Behavioural and Cognitive Psychotherapy, 19*(1), 6-19.

Schafer, J. L., & Graham, J. W. (2002). Missing data: our view of the state of the art. *Psychological Methods, 7*(2), 147-177.

Schmidt, N. B., Buckner, J. D., Pusser, A., Woolaway-Bickel, K., Preston, J. L., & Norr, A. (2012). Randomized controlled trial of false safety behavior elimination therapy: A unified cognitive behavioral treatment for anxiety psychopathology. *Behavior Therapy, 43*(3), 518-532.

Sheehan, D., Harnett-Sheehan, K., & Raj, B. (1996). The measurement of disability. *International Clinical Psychopharmacology, 11,* 89-95.

Tolin, D. F., Gilliam, C., Wootton, B. M., Bowe, W., Bragdon, L. B., Davis, E.,. . . Hallion, L. S. (2016). Psychometric Properties of a Structured Diagnostic Interview for DSM-5 Anxiety, Mood, and Obsessive-Compulsive and Related Disorders. *Assessment, 25*(1), 3-13.

Weathers, F. W., Blake, D. D., Schnurr, P. P., Kaloupek, D. G., Marx, B. P., & Keane, T. M. (2013). Clinician- administered PTSD scale for DSM-5. *Boston: National Center for Posttraumatic Stress Disorder.*