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TITLE: Trauma-Informed Guilt Reduction (TrIGR) Intervention

PRINCIPAL INVESTIGATOR: Sonya Norman, PhD

CONTRACTING ORGANIZATION: Veterans Medical Research Foundation
San Diego, CA

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14. ABSTRACT

Posttraumatic guilt and shame are common among Veterans and have been implicated in the development and maintenance of posttraumatic distress and a range of adverse outcomes, including posttraumatic stress disorder (PTSD), depression and suicidality, and alcohol/substance use disorders**.** There is a pressing need for effective treatments targeting transdiagnostic mechanisms such as guilt. We developed Trauma Informed Guilt Reduction (TrIGR) therapy as a therapeutic tool to help Veterans accurately appraise deployment-related guilt and to re-identify and re-engage with their values. The overall objective of this study is to examine the efficacy of TrIGR in reducing deployment-related guilt. The overarching hypothesis is that TrIGR will reduce guilt, shame, and related distress, and these improvements will be significantly greater than in the comparison condition, Supportive Care Therapy (SCT). The study is a Stage 2 randomized, controlled trial of TrIGR compared to SCT. Recruitment of participants takes place at two VA Medical Centers (San Diego, CA and Providence, RI). 150 OEF/OIF Veterans will be randomized to TrIGR or SCT (at least 75 in San Diego). All eligible participants complete an in-person baseline assessment, receive 6 sessions of TrIGR or SCT in individual format, complete brief bi-weekly self-report measures during treatment, and complete follow-up assessments immediately post-treatment, and 3- and 6-months later.

15. SUBJECT TERMS
Guilt, shame, deployment, posttraumatic, distress, PTSD, depression, functioning, psychotherapy, intervention

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1. INTRODUCTION:

Posttraumatic guilt and shame are common among Veterans and have been implicated in the development and maintenance of posttraumatic distress and a range of adverse outcomes, including posttraumatic stress disorder (PTSD), depression and suicidality, and alcohol/substance use disorders. There is a pressing need for effective treatments targeting transdiagnostic mechanisms such as guilt. We developed Trauma Informed Guilt Reduction (TrIGR) therapy as a therapeutic tool to help Veterans accurately appraise deployment-related guilt and to re-identify and re-engage with their values. Our previous pilot studies of TrIGR with OEF/OIF/OND Veterans and active duty Marines showed reductions in guilt distress and severity, PTSD symptoms, and depression with medium to large effect sizes. The overall objective of this study is to examine the efficacy of TrIGR in reducing deployment-related guilt. The overarching hypothesis is that TrIGR will reduce guilt, shame, and related distress, and these improvements will be significantly greater than in the comparison condition, Supportive Care Therapy (SCT). The study is a Stage 2 randomized, controlled trial of TrIGR compared to SCT. Recruitment of participants took place at two VA Medical Centers (San Diego, CA and Providence, RI). 145 OEF/OIF/OND Veterans were randomized to TrIGR or SCT across two sites (92 in San Diego). All eligible participants completed an in-person baseline assessment, receive 6 sessions of TrIGR or SCT in individual format, completed brief bi-weekly self-report measures during treatment, and completed follow-up assessments immediately post-treatment, and 3- and 6-months later. We have completed data collection and data analyses. The primary outcome paper for the trial is under review with a peer reviewed psychiatry journal.

We also were approved to run a pilot RCT of the same two treatments for guilt from events in the pandemic. For this extension, we are conducting a prospective, randomized, controlled pilot trial examining the efficacy of TrIGR compared to SCT for the treatment of guilt and distress related to a COVID-19 stressor. 72 male and female Veterans of OEF/OIF/OND will be randomized at the San Diego, Providence, and Boston VAs. Participants complete a baseline assessment, receive 6 weekly sessions of TrIGR or SCT, complete a follow-up assessment post-treatment, and 1-month later. Study visits are conducted over telehealth. Recruitment is ongoing.

2. KEYWORDS

Guilt, shame, deployment, posttraumatic, distress, PTSD, depression, functioning, psychotherapy, intervention

3. ACCOMPLISHMENTS

- **What were the major goals of the project?**

Per our Statement of Work (SOW), effort was expended on the following milestones and subtasks during this fourth year:

<u>Conduct RCT – San Diego</u>

Major Task 1: Start-up Activities
Subtask 1: Prepare Regulatory Documents and Research Protocol (Month 1).
Progress: Subtask 1 completed.
Subtask 2: Obtain regulatory approvals (VA, DoD, affiliated institutions) (Months 2-3).
Progress: Completed.
Subtask 3: Hire and train all study personnel (Months 0-6).
Progress: Completed.
Subtask 4: Set up data entry and management procedures (Months 3-7).
Progress: Completed.

Major Task 2: Conduct RCT
Subtask 1: Enroll 75 at San Diego site (Months 6-34).
Progress: We enrolled one hundred and seventeen people by the end of September.
Subtask 2: Randomize to study condition (TrIGR or SCT) (Months 6-34).
Progress: We have randomized ninety-two participants.
Subtask 3: Deliver study interventions (Months 6-36).
Progress: Seventy are currently in or have completed treatment.
Subtask 4: Conduct assessments (Months 8-42).
Progress: Assessments are in progress per protocol.
Subtask 5: Data collection (6 -42).
Progress: Data collection is in progress per protocol.

Major Task 2 - Conduct Pilot RCT Related to COVID-19 – San Diego

Subtask 1: Enroll 24 at San Diego site (Months 6-34).
Progress: We enrolled 28 participants by the end of September.

Subtask 2: Randomize to study condition (TrIGR or SCT) (Months 6-34).
Progress: We have randomized 18 participants.

Subtask 3: Deliver study interventions (Months 6-36).
Progress: 18 are currently in or have completed treatment.

Subtask 4: Conduct assessments (Months 8-42).
Progress: Assessments are in progress per protocol.

Subtask 5: Data collection (6 -42).
Progress: Data collection is in progress per protocol.

Major Task 2 - Conduct Pilot RCT Related to COVID-19 – Boston

Subtask 1: Enroll 24 at Boston site (Months 6-34).
Progress: We enrolled 16 participants by the end of September.

Subtask 2: Randomize to study condition (TrIGR or SCT) (Months 6-34).
Progress: We have randomized 10 participants.

Subtask 3: Deliver study interventions (Months 6-36).
Progress: 9 are currently in or have completed treatment.

Subtask 4: Conduct assessments (Months 8-42).
Progress: Assessments are in progress per protocol.

Subtask 5: Data collection (6 -42).
Progress: Data collection is in progress per protocol.

RCT – San Diego

472 participants were recruited/referred to the study. We screened 214 participants. Of these, 176 screened eligible and 38 screened ineligible. 258 of the referred participants were not screened (122 could not be reached, 110 were not interested in screening after the study was explained, 2 had moved out of the area so screening was not conducted, 24 were not screened after chart review determined they were not OOO). 1 screened eligible but was not enrolled due to COVID

We consented 117 participants and randomized 92. The original planned target was 75. Of the 176 participants who screened eligible, 59 were not consented by 9/30/20: 52 decided not to proceed with the study (39 could not be reached to schedule consent appointment, 18 are no longer interested in the study, 1 moved out of the area, 1 was not consented due to COVID-19). 25 of the 117 consented participants were not randomized – 9 were not eligible after baseline assessments, 12 were not able to be reached after the consent/baseline appointment, 4 were no longer interested after baseline assessments.

Of the 117 consented participants 10 were female and 107 were male. 39 were Hispanic, 46 were White, 2 was Native Hawaiian or Pacific Islander, 13 were Black/African American, 10 were Asian, 3 were multiracial, 4 declined to identify a race/ethnicity.

Of the 92 randomized participants, 8 were female and 84 were male. 28 were Hispanic, 40 were White, 2 were Native Hawaiian or Pacific Islander 10 were Black/African American, 8 were Asian, 2 was multiracial, 2 declined to identify a race/ethnicity.

92 of the 92 randomized participants have completed the study.

RCT Related to COVID-19 – San Diego

157 participants have been recruited/referred to the study. We have screened 76 participants since we launched recruitment. Of these, 39 screened eligible and 37 screened ineligible. 81 of the referred participants were not screened (38 could not be reached, 13 were not interested in screening after the study was explained, 28 were not screened after the participant disclosed information indicating they would not be eligible prior to screening, 2 are still being contacted).

We have consented 28 participants and randomized 18. The original planned target was 24. Of the 39 participants who screened eligible, 11 were not consented by 9/30/21: 11 decided not to proceed with the study (7 could not be reached to schedule consent appointment, 4 are no longer interested in the study). 10 of the 28 consented participants were not randomized – 6 were not eligible after baseline assessments, 2 were not able to be reached after the consent/baseline appointment, 2 are still conducing baseline appointments.

Of the 28 consented participants 5 were female and 23 were male. 9 were Hispanic, 10 were White, 0 were Native Hawaiian or Pacific Islander, 2 were Black/African American, 2 were Asian, 5 declined to identify a race/ethnicity.

Of the 18 randomized participants, 1 was female and 17 were male. 6 were Hispanic, 7 were White, 0 were Native Hawaiian or Pacific Islander 1 was Black/African American, 2 were Asian, 2 declined to identify a race/ethnicity.

17 of the 18 randomized participants have completed the study.

RCT Related to COVID-19 – Boston

91 participants have been recruited/referred to the study. We have screened 47 participants since we launched recruitment. Of these, 20 screened eligible and 27 screened ineligible. 44 of the referred participants were not screened (27 could not be reached, 6 were not interested in screening after the study was explained, 2 were not screened after the participant disclosed information indicating they would not be eligible prior to screening, 9 are still being contacted).

We have consented 16 participants and randomized 10. The original planned target was 24. Of the 20 participants who screened eligible, 4 were not consented by 9/30/21: 4 decided not to proceed with the study (4 could not be reached to schedule consent appointment). 6 of the 16 consented participants were not randomized – 3 were not eligible after baseline assessments, 3 were not able to be reached after the consent/baseline appointment, 0 are still conducing baseline appointments.

Of the 16 consented participants 7 were female and 9 were male. 1 were Hispanic, 9 were White, 0 were Native Hawaiian or Pacific Islander, 3 were Black/African American, 0 were Asian, 4 declined to identify a race/ethnicity.

Of the 10 randomized participants, 4 were female and 6 were male. 1 were Hispanic, 7 were White, 0 were Native Hawaiian or Pacific Islander 3 was Black/African American, 0 were Asian, 0 declined to identify a race/ethnicity.

9 of the 10 randomized participants have completed the study.

- **What was accomplished under these goals?**
  The major activities of for the past FY were completing study recruitment, enrollment, intervention, and data collection.

- **What opportunities for training and professional development has the project provided?**
  We have several psychology trainees (doctoral student, post-doctoral fellows, volunteers) participating in study activities to learn about how to conduct randomized clinical trials.

- **How were the results disseminated to communities of interest?**
  We published a manuscript regarding our study protocol. The primary outcome paper is under review.

- **What do you plan to do during the next reporting period to accomplish the goals?**
  During the next reporting period, we will focus on the milestones and subtasks as detailed in our SOW. Specifically, for the COVID-19 supplement, we will 1) enroll participants; and 2) randomize participants; 3) deliver study interventions; and 4) conduct data collection.

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

We had initial challenges with IRB approval for the extension at some sites in that approval took longer than we anticipated but now all sites have approval and are recruiting.

6. PRODUCTS

- **Publications, conference papers, and presentations**
  - Capone, C., **Norman, S.B.,** Haller, M., Davis, B., Shea, .M.T., Browne, K., Lang, A.J., Schnurr, P.P., Golshan, S., Afari, N., Pittman, J., Allard, C.B., Westendorf, L. (2021). Trauma informed guilt reduction (TrIGR) therapy for guilt, shame, and moral injury resulting from trauma: Rationale, design, and methodology of a two-site randomized controlled trial. *Contemporary Clinical Trials.* doi: 10.1016/j.cct.2020.106251
- **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: Sonya Norman, PhD
Project Role: Principal Investigator
Researcher Identifier (e.g. ORCID ID): 0000-0002-4751-1882
Nearest person month worked: 3.00 CM
Contribution to Project: Dr. Norman oversees all aspects of the study including recruitment, enrollment, and data collection.
Funding Source: Trauma Informed Guilt Reduction (TrIGR) Intervention Grant W81XWH-15-1-0330

Name: Shahrokh Golshan, PhD
Project Role: Statistician
Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 1.20 CM
Contribution to Project: Dr. Golshan prepared databases and prepared the data entry system.
Funding Source: Trauma Informed Guilt Reduction (TrIGR) Intervention Grant W81XWH-15-1-0330

Name: Brittany C Davis, PhD
Project Role: Co-Investigator
Research Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 1.80 CM

Contribution to Project: Dr. supervises and trains therapists.
Funding Source: Trauma Informed Guilt Reduction (TrIGR) Intervention Grant W81XWH-15-1-0330

Name: Moira Haller, PhD
Project Role: Co-Investigator
Research Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 1.80 CM
Contribution to Project: Dr. Haller supervises and trains therapists.
Funding Source: Trauma Informed Guilt Reduction (TrIGR) Intervention Grant W81XWH-15-1-0330

Name: Laura Westendorf, MPH
Project Role: Project Coordinator
Research Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 3.00 CM
Contribution to Project: Laura Westendorf is responsible for coordinating all aspects of the study, is recruiting and consenting patients, managing day-to-day tasks for the study and is responsible for supporting study staff where needed.
Funding Source: Trauma Informed Guilt Reduction (TrIGR) Intervention Grant W81XWH-15-1-0330

Name: Mary Linges, B.A.
Project Role: Study Assessor
Research Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 6.80 CM
Contribution to Project: Ms. Linges replaced Danielle Zuest as the main study assessor and conducts all intake and follow-up assessments.
Funding Source: Trauma Informed Guilt Reduction (TrIGR) Intervention Grant W81XWH-15-1-0330

Name: Jennifer Wachen, PhD
Project Role: Site PI
Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 1.80 CM
Contribution to Project: Dr. Wachen oversees all aspects of the Boston site including recruitment, enrollment, and data collection.
Funding Source: Trauma Informed Guilt Reduction (TrIGR) Intervention Grant W81XWH-15-1-0330

Name: Tara Galovski, PhD
Project Role: Site Co-I
Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 0.60 CM
Contribution to Project: Dr. Galovski assists with all aspects of the Boston site study.
Funding Source: Trauma Informed Guilt Reduction (TrIGR) Intervention Grant W81XWH-15-1-0330

Name: Rachel Zelkowitz, PhD
Project Role: Study Therapist

Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 0.60 CM
Contribution to Project: Dr. Zelkowitz will treat study participants with the study condition, TrIGR, or the control condition, SCT.
Funding Source: Women's Health Sciences Division Women's Health Fellowship

Name: Joseph Carpenter, PhD
Project Role: Study Therapist
Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 0.60 CM
Contribution to Project: Dr. Carpenter will treat study participants with the study condition, TrIGR, or the control condition, SCT
Funding Source: Women's Health Sciences Division Women's Health Fellowship

Name: Lauren McSweeney, PhD
Project Role: Study Therapist
Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 0.60 CM
Contribution to Project: Dr. Carpenter will treat study participants with the study condition, TrIGR, or the control condition, SCT
Funding Source: Women's Health Sciences Division

Name: Allison Cole
Project Role: Project Coordinator
Researcher Identifier (e.g. ORCID ID): N/A
Nearest person month worked: 6.00 CM
Contribution to Project: Allison Cole assists with coordinating study activities such as preparing study materials, study recruitment, enrollment, etc.
Funding Source: Trauma Informed Guilt Reduction (TrIGR) Intervention Grant W81XWH-15-1-0330

- **Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?**
  Nothing to Report

- **What other organizations were involved as partners?**
  Organization Name: Providence VA Medical Center
  Location of Organization: Providence, RI
  Partner's contribution to the project:
  Financial Support: N/A
  In-Kind Support: N/A
  Facilities: N/A
  Collaboration: Partnering PI
  Personnel exchanges: N/A
  Other: N/A

8. Special Reporting Requirements

A. Collaborative Awards

- Providence VA Medical Center will submit a separate report.

B. Quad Charts

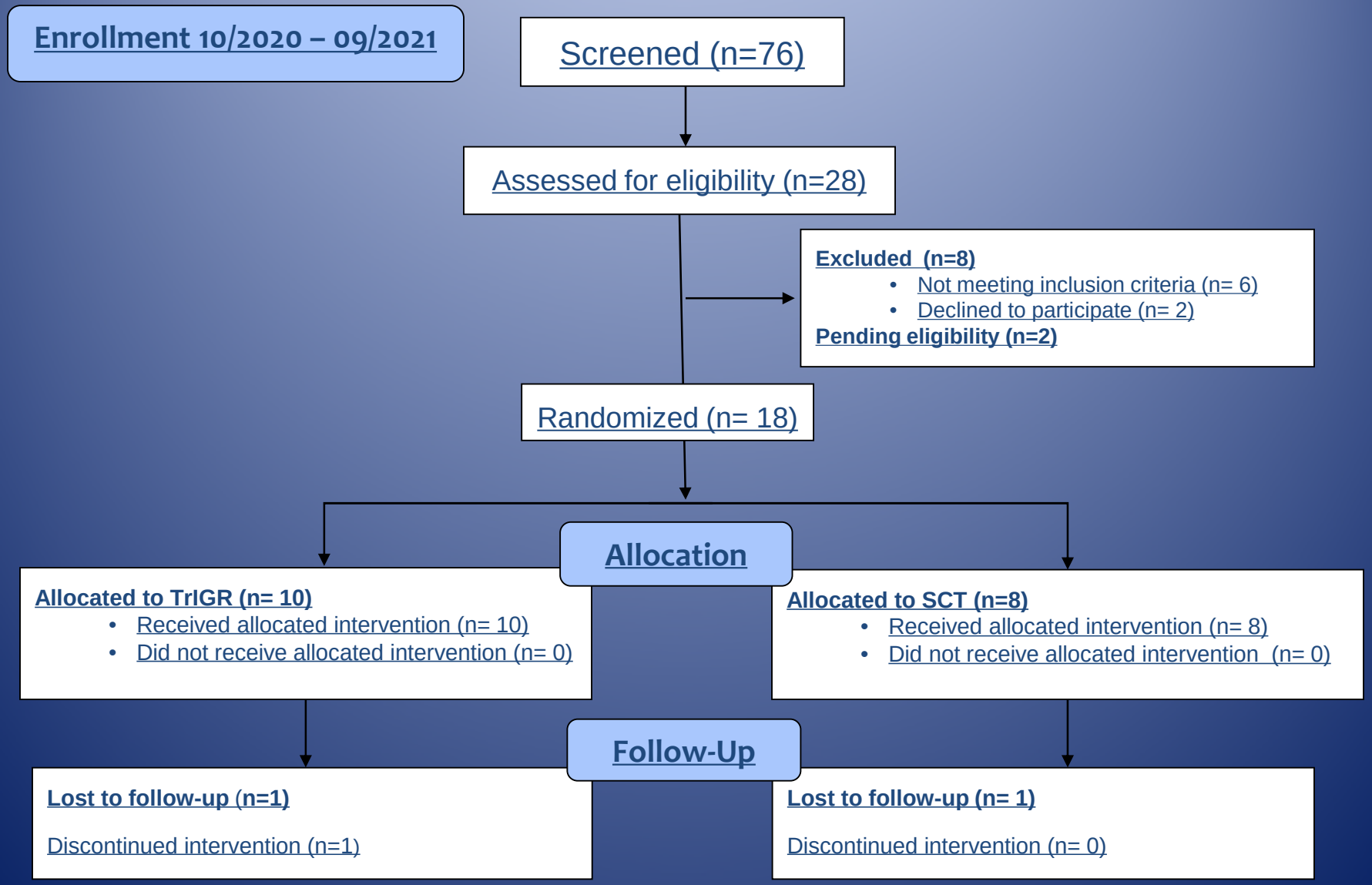
- Attachment 1

9. Appendices

- Consort Diagram - Attachment 2

Attachment 2

CONSORT Diagram – San Diego



Trauma Informed Guilt Reduction (TrIGR) Intervention

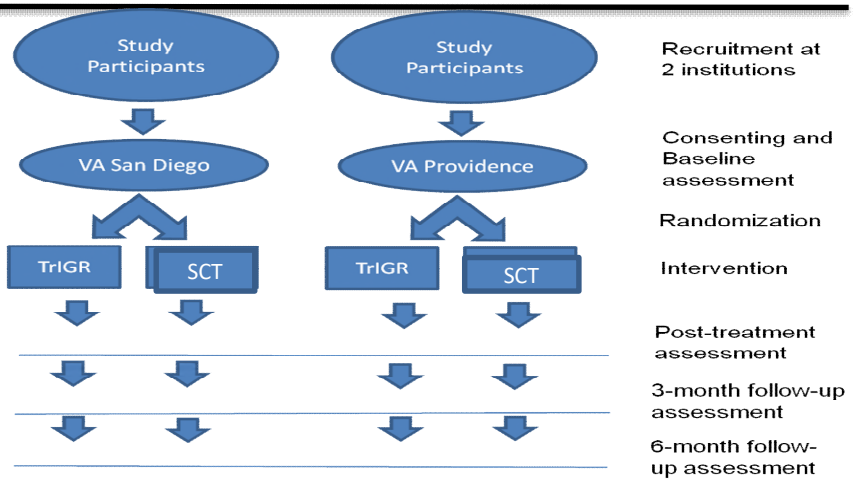
PI: Sonya Norman, PhD **Org:** Veterans Medical Research Foundation **Award Amount:** $2,515,565.00

Study/Product Aim(s)

- Conduct a randomized clinical trial to determine if a six-session treatment, Trauma Informed Guilt Reduction (TrIGR), relative to supportive care therapy (SCT) at post-treatment, 3- and 6-month follow up:
  - Reduces guilt (primary aim)
- As secondary and exploratory aims, assess if TrIGR:
  - reduces distress and shame, improves quality of life
  - reduces disorder specific symptoms (PTSD, MDD)
  - reduces suicidal ideation and alcohol/substance use

Approach

We propose a stage 2 randomized clinical trial across 2 VA Medical Centers (San Diego, Providence). 150 male and female Veterans of OEF/OIF reporting guilt related to a combat event will be randomized to TrIGR or SCT and followed through treatment, 3- and 6-month follow-up. Hypotheses are that TrIGR, relative to SCT, will reduce guilt, distress, shame, disorder specific symptoms, and SI and alcohol/substance use and improve Quality of Life.



Study PI recently completed two open-label trials to evaluate the effectiveness of TrIGR. Participants showed significant reductions in guilt and distress over the course of treatment. Satisfaction with the intervention was extremely high.

Timeline and Cost

Activities	FY1	FY2	FY3	FY4	FY5
Finalize procedures and approvals, hire and train staff					
Recruit, enroll, collect data					
Data analysis, report preparation					
Estimated Total Budget ($2.515.565)*	527k	492k	503k	468k	525k

Updated: 10/27/2021

Goals/Milestones

Study Year 1 Goal – Prepare regulatory documents and research protocol
- ☑ Sign contracts, prepare protocol, and obtain approval from VA sites and USAMRMC
- ☑ Prepare, program, purchase and test all forms for study documentation
- ☑ Recruit and train research staff

Study Year 2 Goals – Participant recruitment, randomization, intervention
- ☑ Participant recruitment, randomization, pre-assessment and TrIGR/SCT
- ☑ Post-intervention, 3-month and 6-month post-treatment follow-up assessment
- ☑ Validate audio recordings of TrIGR and SCT sessions

Study Year 3 Goals – Complete enrollment and validation of TrIGR/SCT sessions
- ☑ Complete recruitment, randomization, pre-assessment, and TrIGR/SCT
- ☑ Continue post-intervention and follow up assessments at 3- and 6- months

Study Year 4 Goals – Analyze data and prepare manuscripts
- ☑ Complete follow up assessments and data entry
- ☐ Ensure data integrity
- ☐ Data analysis and manuscript preparation

Projected Expenditure: $2,515,565.00 Actual Expenditure: $2,154,258.86