Pharmacologic and Nonpharmacologic Treatments for Posttraumatic Stress Disorder: Groundwork for a Publicly Available Repository of Randomized Controlled Trial Data
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Pharmacologic and Nonpharmacologic Treatments for Posttraumatic Stress Disorder: Groundwork for a Publicly Available Repository of Randomized Controlled Trial Data

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Prepared by:
Pacific Northwest Evidence-based Practice Center
Portland, OR

Investigators:
Maya O’Neil, Ph.D.
Marian McDonagh, Pharm.D.
Frances Hsu, M.S.
Tamara Cheney, M.D.
Kathleen Carlson, Ph.D., M.S.
Rebecca Holmes, M.D., M.S.
Shaun Ramirez, M.P.H.
Erica Hart, M.S.T.
Katrina Murphy, B.S.
Elaine Graham, M.L.S.
Roger Chou, M.D.

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Key Messages

Purpose
The purpose of this project was to identify and abstract data from randomized controlled trials (RCTs) of posttraumatic stress disorder (PTSD) interventions to support the development of a publicly accessible data repository by the National Center for Posttraumatic Stress Disorder.

Key Messages
- We abstracted data from 318 RCTs, including psychotherapeutic interventions (55%), pharmacologic interventions (30%), and complementary and integrative or nonpharmacologic biological treatments (15%).
- Studies included community (57%) and military/veteran (43%) populations.
- Less than half of the studies reported on the loss of PTSD diagnosis or clinically meaningful response/remission of symptoms. Reporting was incomplete for many data elements.
- Information on gaps in the evidence may inform future research.
This report is based on research conducted by the Pacific Northwest Evidence-based Practice Center (EPC) under contract to the Agency for Healthcare Research and Quality (AHRQ), Rockville, MD (Contract No. 290-2015-00009-I). The findings and conclusions in this document are those of the authors, who are responsible for its contents; the findings and conclusions do not necessarily represent the views of AHRQ. Therefore, no statement in this report should be construed as an official position of AHRQ or of the U.S. Department of Health and Human Services.

None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

The information in this report is intended to help healthcare decision makers—patients and clinicians, health system leaders, and policymakers, among others—make well-informed decisions and thereby improve the quality of healthcare services. This report is not intended to be a substitute for the application of clinical judgment. Anyone who makes decisions concerning the provision of clinical care should consider this report in the same way as any medical reference and in conjunction with all other pertinent information, i.e., in the context of available resources and circumstances presented by individual patients.

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This report may periodically be assessed for the currency of conclusions. If an assessment is done, the resulting surveillance report describing the methodology and findings will be found on the Effective Health Care Program website at www.effectivehealthcare.ahrq.gov. Search on the title of the report.

Persons using assistive technology may not be able to fully access information in this report. For assistance contact EPC@ahrq.hhs.gov.

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Preface

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-based Practice Centers (EPCs), sponsors the development of evidence reports and technology assessments to assist public- and private-sector organizations in their efforts to improve the quality of healthcare in the United States. The U.S. Department of Veterans Affairs requested this report from the EPC Program at AHRQ. The reports and assessments provide organizations with comprehensive, science-based information on common, costly medical conditions and new healthcare technologies and strategies. The EPCs systematically review the relevant scientific literature on topics assigned to them by AHRQ and conduct additional analyses, when appropriate, prior to developing their reports and assessments.

This EPC evidence report is a Technical Brief. A Technical Brief is a rapid report, typically on an emerging medical technology, strategy, or intervention. It provides an overview of key issues related to the intervention—for example, current indications, relevant patient populations and subgroups of interest, outcomes measured, and contextual factors that may affect decisions regarding the intervention.

This Technical Brief includes data abstracted from published randomized controlled trials on interventions for posttraumatic stress disorder. These data were adapted to support the development of a publicly available repository by the National Center for Posttraumatic Stress Disorder.

AHRQ expects that the EPC evidence reports and technology assessments will inform individual health plans, providers, and purchasers, as well as the healthcare system as a whole, by providing important information to help improve healthcare quality.

If you have comments on this Technical Brief, they may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 5600 Fishers Lane, Rockville, MD 20857, or by email to epc@ahrq.hhs.gov.

Gopal Khanna, M.B.A.  
Director  
Agency for Healthcare Research and Quality

Stephanie Chang, M.D., M.P.H.  
Director  
Evidence-based Practice Center Program  
Center for Evidence and Practice Improvement  
Agency for Healthcare Research and Quality

Sonya B. Norman, Ph.D.  
PTSD Consultation Program Director  
National Center for Posttraumatic Stress Disorder  
Department of Veterans Affairs

Arlene S. Bierman, M.D., M.S.  
Director, Center for Evidence and Practice Improvement  
Agency for Healthcare Research and Quality

Kim Marie Wittenberg, M.A.  
Task Order Officer  
Evidence-based Practice Center Program  
Center for Evidence and Practice Improvement  
Agency for Healthcare Research and Quality

Jessica L. Hamblen, Ph.D.  
Deputy for Education  
National Center for Posttraumatic Stress Disorder  
Department of Veterans Affairs

Juliette M. Harik, Ph.D.  
Psychologist  
National Center for Posttraumatic Stress Disorder  
Department of Veterans Affairs
Acknowledgments

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Technical Expert Panel

In designing the research methodology (e.g., inclusion criteria and elements for abstraction) at the outset of this report, the EPC consulted several technical and content experts. Broad expertise and perspectives were sought. Divergent and conflicting opinions are common and perceived as healthy scientific discourse that results in a thoughtful, relevant Technical Brief. Therefore, in the end, decisions on methodologic approaches for searching for and determining eligibility of studies for inclusion, and the elements of each included study that were abstracted in this work do not necessarily represent the views of individual technical and content experts.

Technical Experts must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals with potential conflicts may be retained. The Task Order Officer (TOO) and the EPC work to balance, manage, or mitigate any potential conflicts of interest identified.

The list of Technical Experts who provided input to this report follows:

Susan Borja, Ph.D.*
Program Chief, Dimensional Measurement and Intervention Program, Traumatic Stress Program, Division of Translational Research National Institute of Mental Health Rockville, MD

Anke Ehlers, Dipl.-Psych., Ph.D., Dr. rer. nat. habil., C.Clin.Psychol.*
Co-Director, Oxford Centre for Anxiety Disorders and Trauma, Professor of Experimental Psychopathology, and Wellcome Trust Principal Research Fellow, Department of Experimental Psychology, Medical Sciences Division University of Oxford Oxford, UK

Edna Foa, Ph.D.
Director, Center for the Treatment and Study of Anxiety Professor, Clinical Psychology in Psychiatry, Perelman School of Medicine University of Pennsylvania Philadelphia, PA

Ariel Lang, Ph.D., M.P.H.
Acting Director, VA Center of Excellence for Stress and Mental Health VA San Diego Healthcare System Professor in Residence, Psychiatry Adjunct Professor, Family Medicine and Public Health, University of California, San Diego San Diego, CA
Prior to publication of the final evidence report, the EPC sought input from independent Peer Reviewers without financial conflicts of interest. However, the conclusions and synthesis of the scientific literature presented in this report do not necessarily represent the views of individual reviewers.

Peer Reviewers must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals with potential nonfinancial conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any potential nonfinancial conflicts of interest identified.

The list of Peer Reviewers follows:

Laura Fochtmann, M.D., M.B.I.
SUNY Distinguished Service Professor
Departments of Psychiatry, Pharmacological Sciences and Biomedical Informatics
Stony Brook University
Stony Brook, NY

Daniel E. Jonas, M.D., M.P.H.
Associate Professor of Medicine, Section Chief for Research
Division of General Medicine and Clinical Epidemiology
University of North Carolina
Chapel Hill, NC
Pharmacologic and Nonpharmacologic Treatments for Posttraumatic Stress Disorder: Groundwork for a Publicly Available Repository of Randomized Controlled Trial Data

Structured Abstract

Background. Posttraumatic stress disorder (PTSD) reduces quality of life and functioning. People with PTSD have symptoms such as intrusive thoughts, nightmares, flashbacks, avoidance of trauma-related stimuli, negative beliefs about themselves and/or others, and hypervigilance. The symptoms may be due to direct or indirect exposure to trauma, such as witnessing actual or threatened death, injury, or violence, including sexual violence and threats of harm. Although recent clinical practice guidelines and reviews exist, providing a single, updatable source of PTSD treatment trials would be useful for clinicians, researchers, and policymakers.

Purpose. To provide detailed information on PTSD treatment research, we systematically abstracted data from randomized controlled trials (RCTs) of PTSD interventions. The National Center for Posttraumatic Stress Disorder (NCPTSD) intends to use the data to develop a publicly available data repository. The NCPTSD is part of the U.S. Department of Veterans Affairs.

Data sources. We searched PTSDpubs (formerly PILOTS), Ovid® MEDLINE®, Cochrane CENTRAL, PsycINFO®, Embase®, CINAHL®, and Scopus® for eligible RCTs and reviewed reference lists of selected systematic reviews and clinical practice guidelines.

Methods. In consultation with NCPTSD, we established inclusion criteria for RCTs and specific data elements to be abstracted. We dually reviewed citations from the literature search, and then the full text of potentially includable articles for eligibility, resolving any disagreements using consensus. One team member abstracted data from included RCTs into evidence tables, and a second reviewer checked abstracted data for accuracy and completeness. The primary publication for each RCT was abstracted; data and citations from any secondary publications (i.e., companion papers) appear in the same record.

Findings. We identified 318 RCTs of PTSD interventions for abstraction (106 pharmacologic studies and 212 nonpharmacologic studies) published from 1988 to 2018, with a peak number of publications (31) in 2015. Psychotherapeutic interventions were the most commonly studied (55%), whereas 30 percent evaluated pharmacologic interventions. Most studies were conducted in the United States (61%), and most had sample sizes in the range of 25 to 100 participants (60% of studies), with a relatively small number of studies enrolling fewer than 25 participants (18%). More studies enrolled participants from a community population (57%) than from a military, veteran, or other population, and the majority of studies were conducted in the outpatient setting (67%). Studies most often enrolled participants with a mix of trauma types (51%), followed by studies of participants with combat-related trauma (20%).

Although there was wide variation, the most commonly used PTSD assessment methods were the Clinician-Administered PTSD Scale (CAPS) and the Structured Clinical Interview for DSM (SCID). Less than half of the studies reported loss of PTSD diagnosis or clinically meaningful
response/remission of symptoms. Several other data elements were infrequently reported, including the number of participants with a history of traumatic brain injuries and the number of trauma types.

**Conclusions.** The data abstracted from 318 RCTs of treatments for PTSD can be used to create a publicly available data repository. By identifying important gaps in the research, such a data repository can inform future study design and conduct.
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Executive Summary

Background

The purpose of this project was to identify and abstract data from randomized controlled trials of treatments for posttraumatic stress disorder (PTSD). The National Center for Posttraumatic Stress Disorder (NCPTSD) intends to use the data to develop a publicly available data repository of randomized controlled trials of PTSD treatments.

People who have experienced direct or indirect exposure to trauma, such as witnessing actual or threatened death, injury, or violence, including sexual violence and threats of harm, may develop PTSD. People with PTSD can present with a diverse collection of symptoms such as intrusive thoughts, nightmares, flashbacks, avoidance of trauma-related stimuli, negative beliefs about oneself and/or others, and hypervigilance. Untreated, these symptoms can last for years and reduce quality of life and functioning. While there are treatments that have been found to improve symptoms, there is not one single treatment known to be most effective, and selecting a treatment for a given patient can be fraught with uncertainty.

The NCPTSD data repository will serve multiple stakeholders and purposes—

- Support clinicians, policymakers, researchers, and patients and their families in selecting treatments, and understanding the benefits and harms of different treatments.
- Offer a place to search for evidence on specific interventions, including the participant characteristics and settings in which they have been studied (or identify which treatments have not been studied).
- Identify evidence gaps to determine research priorities, and serve as a data source for researchers to understand these gaps more fully as they design new research.

Methods

We consulted with the Agency for Healthcare Research and Quality (AHRQ); its sponsoring partner, the NCPTSD; and members of a multidisciplinary Technical Expert Panel to guide our work on this project. We searched multiple databases for eligible studies: PTSDpubs (formerly PILOTS), Ovid® MEDLINE®, Cochrane CENTRAL, PsycINFO®, Embase®, CINAHL®, and Scopus®. In addition, we reviewed reference lists of selected systematic reviews and clinical practice guidelines. With input from NCPTSD and from AHRQ, the EPC team established criteria to determine eligibility for inclusion and exclusion of studies. We abstracted data on population, study characteristics, and outcomes reported in the included studies into evidence tables. The evidence tables for this report are more detailed than the typical systematic review evidence tables in order to achieve the end goal of displaying information on PTSD treatment studies in a searchable and interactive repository that will be formatted for public availability. We devoted considerable time and attention to developing and documenting standard conventions for recording study data. This documentation supports consistent and comprehensive reporting of study data in the current project and potential future projects.

Findings

After reviewing 7,842 article abstracts and 1,101 full-text publications, we identified 318 randomized controlled trials that met inclusion criteria. Studies were published from 1988 to 2018, with increased volume in the past 10 years, particularly for nonpharmacologic intervention studies. Psychotherapeutic interventions were the most commonly studied (55% of studies),
whereas 33 percent evaluated pharmacologic interventions. The majority of studies were conducted in the United States (61%), and most had sample sizes in the range of 25 to 100 participants (60% of studies), with a relatively small number of studies enrolling fewer than 25 participants (18%). More participants were enrolled from a community population (57%) than from a military, veteran, or other population for both pharmacologic and nonpharmacologic intervention studies. The majority of studies were conducted in the outpatient setting (73%). Studies most often enrolled participants with a mix of trauma types (50%), followed by participants with combat-related trauma (19%).

Although there was wide variation, the most commonly used PTSD assessment methods were the Clinician-Administered PTSD Scale (CAPS), Structured Clinical Interview for DSM (SCID), and clinician-assessed Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria (55%). Less than half of the studies reported key outcomes of loss of PTSD diagnosis and clinically meaningful response/remission of symptoms. Only 16% of pharmacologic studies reported diagnosis change. In addition, several other data elements were infrequently reported in publications of both types of studies. For instance, history and mean number of traumatic events were reported in only a small number of nonpharmacologic (4%) and pharmacologic (19%) studies.

**Next Steps**

Future work to help support and expand the eventual NCPTSD repository may include adding either studies or outcomes and analyses that were not eligible to be included here. Conversion of the abstracted data into an interactive and searchable repository will be completed by the NCPTSD during a later phase of this project.
Introduction

Background

Posttraumatic stress disorder (PTSD) is characterized by symptoms such as intrusive thoughts, nightmares, flashbacks, avoidance of trauma-related stimuli, negative beliefs about self and/or others, and hypervigilance due to direct or indirect exposure to trauma such as witnessing actual or threatened death, injury, or violence including sexual violence/abuse and threats of harm. PTSD has significant negative impacts on quality of life and functioning. U.S. civilian 12-month and lifetime prevalence estimates of PTSD are 4.7 percent and 6.1 percent, respectively, compared to the lifetime prevalence of 6.9 percent in veterans. Slightly higher lifetime prevalence estimates are common among wartime veterans. In a RAND Corporation survey conducted in 2008, point-prevalence of PTSD among U.S. service members deployed in Operation Enduring Freedom or Operation Iraqi Freedom was 13.8 percent.

In addition to being quite prevalent, PTSD is associated with a host of other health concerns. In multivariable models adjusting for age, race/ethnicity, sex, education, income, marital status, urbanicity, geographic region, and additional psychiatric disorders, PTSD was highly associated with comorbid anxiety, mood, and personality disorders in both civilians and veterans. PTSD is also associated with cardiovascular disease, arthritis, asthma, chronic pain, diabetes, bone and joint conditions, and gastrointestinal disorders, leading to high utilization of health services.

The prevalence of PTSD and its impact on health and healthcare utilization has prompted extensive research on effective ways to treat it. In 2017, the Department of Veterans Affairs (VA) and the Department of Defense (DoD) released an updated clinical practice guideline (CPG) on the treatment of PTSD. This CPG was based on literature available through March 2016, and it addressed pharmacologic and nonpharmacologic (including complementary and integrative health) interventions for PTSD. The CPG recommended individual, manualized trauma-focused psychotherapy with exposure and/or cognitive restructuring, such as prolonged exposure (PE), cognitive processing therapy (CPT), eye movement desensitization and reprocessing (EMDR), specific cognitive behavioral therapies (CBT) for PTSD, brief eclectic psychotherapy (BEP), narrative exposure therapy (NET), and written narrative exposure. If trauma-focused psychotherapy is not readily available or not preferred, the CPG recommended individual non-trauma-focused psychotherapy or pharmacotherapy. Currently, only the selective serotonin reuptake inhibitors (SSRIs) sertraline and paroxetine are approved by the U.S. Food and Drug Administration (FDA) for treatment of PTSD. However, the CPG recommended the SSRI fluoxetine and the serotonin-norepinephrine reuptake inhibitor (SNRI) venlafaxine as well.

The systematic review used to develop the CPG included many randomized controlled trials (RCTs); more recent RCTs have examined new populations, combinations of interventions, or different treatment durations or modalities. Additional recent RCTs investigated new or emerging interventions such as pharmacotherapies effective for depression or other mental health disorders associated with PTSD, repetitive transcranial magnetic stimulation, and ketamine.

Whereas recent CPGs and reviews exist, providing a single, updatable source of PTSD treatment studies would be useful for clinicians, researchers, and policymakers. Therefore, the purpose of this project is to systematically identify and abstract data from RCTs of PTSD interventions to support development of a new data repository of PTSD treatment research. These data, when available as a publicly accessible data repository, as is planned by the National Center for PTSD (NCPTSD) through their website, could serve multiple stakeholders and purposes. For example, such a data repository could (1) provide policymakers with an up-to-date...
accounting of evidence to facilitate quick and accurate responses to urgent government or media inquiries; (2) serve as a data source for future systematic reviews or meta-analyses; (3) identify research gaps to determine future research priorities on intervention harms or effectiveness; (4) provide the public with a place to search for evidence on interventions they or their loved ones are considering; (5) augment and inform the use of existing tools to assist in patient decision-making such as “AboutFace” videos on PTSD treatments, PTSD apps, or online decision aids available on the NCPTSD website; and (6) serve as a resource for clinicians who are seeking information on effectiveness of interventions for PTSD in patients with particular demographics or exposures.

To effectively serve a variety of stakeholders and purposes, a data repository of PTSD treatment research would need to take into account the nuance and complexity of the available research data on PTSD treatments. There are several challenges to reviewing and compiling the existing PTSD RCT literature in adequate detail to serve the aforementioned clinical, research, and policy purposes. For example, many PTSD trials evaluate complex (multicomponent) interventions (e.g., participants receiving multiple types of psychotherapy components comprising one intervention arm, or receiving both medication and psychotherapy). Another example of the complexity of PTSD RCTs relates to how PTSD is diagnosed in the studies. There are numerous methods of diagnosing PTSD that are not always consistent or validated. Only some are designed to diagnose PTSD (primarily structured clinical interviews such as the Clinician-Administered PTSD Scale [CAPS]), whereas self-report questionnaires often use cutoffs as a proxy for diagnosis. To address these and other challenges in the data reported in PTSD RCTs, development of a repository needs to be detailed enough to include relevant, unique data from each study, yet also be cohesive enough to compare data across studies. This Technical Brief, guided by the sponsoring partner, NCPTSD, is designed to take the first steps in developing this type of large-scale data repository. Because of the modified format of this Technical Brief project that primarily involved abstracting data from a very large number of studies rather than serving as the basis for scoping a future systematic review, the total number of included studies for this project was limited to a maximum of 400.

Guiding Questions

The Guiding Questions for this Technical Brief are:

1. What pharmacologic interventions have been studied for the treatment of PTSD (since 1980)?
2. What nonpharmacologic interventions have been studied for the treatment of PTSD (since 1980)?

PICOTS

The PICOTS (Population, Intervention, Comparator, Outcome, Timing, Setting, and Study design) framework was used to define the scope of the review, as outlined below. The publication dates of studies reviewed for this project are January 1, 1980 (the year PTSD first appeared in the Diagnostic and Statistical Manual of Mental Disorders [DSM]) to July 15, 2018.

• Interventions—Pharmacologic treatments (defined as any drug used to treat PTSD, whether approved by FDA for any use in the United States or not, including Drug Enforcement Administration (DEA) Schedule I drugs), nonpharmacologic treatments including complementary and integrative approaches, and combination of pharmacologic and nonpharmacologic treatments.

• Comparators—No restrictions on the type of comparator were applied. Direct (head-to-head) comparisons of interventions (Table 1) were included. We categorized waitlist/minimal attention, usual care, placebo, or other minimally active intervention (e.g., education or attention control) as “Control” interventions.

• Outcomes—PTSD outcomes including outcomes related to overall PTSD symptoms (e.g., change in total PTSD symptom severity score, diagnostic change, meaningful/reliable/clinically significant change); functional outcomes (e.g., social, family, vocational, education); return to school/work; comorbid psychiatric symptoms; quality of life; and adverse effects and other harms (e.g., sleep disturbance, agitation, mortality, and other serious adverse events, including harm to self or others); number who completed treatment; percent of total sessions attended; number who completed measurement; and method of handling of missing data.

• Timing—No restriction by length of intervention or length of followup.

• Settings—No restriction by location of either the provider or patient (e.g., military base, Veterans Affairs clinic, community clinic, intervention delivered via telehealth, inpatient, outpatient, residential).

• Study Design—RCTs.
Methods

This Technical Brief follows applicable methods guidance from the Agency for Healthcare Research & Quality (AHRQ) Methods Guide for Effectiveness and Comparative Effectiveness Reviews. The full protocol for this project contains a detailed description of the methods and is available at the AHRQ Effective Health Care website (http://effectivehealthcare.ahrq.gov/index.cfm).

Criteria for Inclusion/Exclusion of Studies

The criteria for inclusion and exclusion of studies (Table 1) are based on the Guiding Questions and are consistent with the Population, Interventions, Comparators, Outcomes, Timing, Settings, and Study Design (PICOTS).

Table 1. Inclusion and exclusion criteria

<table>
<thead>
<tr>
<th>Category</th>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Adults (≥18 years old) with a PTSD diagnosis (DSM-III, DSM-III-R, DSM-IV, DSM-IV-TR, DSM-5, ICD-9, or ICD-10) diagnosed by a clinician or through the administration of a validated clinician-administered or patient-reported assessment tool</td>
<td>Children (&lt;18 years old) Diagnosis of acute stress disorder Studies that do not specify criteria used to diagnose PTSD Sample population &lt;80% of participants diagnosed with PTSD</td>
</tr>
<tr>
<td>Interventions</td>
<td>Pharmacologic treatments—studies with any pharmacologic component, whether singly, in combination with other treatment categories, or compared with another intervention category Nonpharmacologic treatments—interventions without any pharmacologic component; including complementary and integrative approaches, nonpharmacologic biological treatments, and psychotherapeutic treatments</td>
<td>Interventions designed to simultaneously treat PTSD and comorbid conditions if they cannot be standalone PTSD interventions (i.e., interventions targeting PTSD and a comorbidity such as depression are included if the intervention can be a treatment for PTSD alone) Interventions designed to prevent PTSD</td>
</tr>
<tr>
<td>Comparators</td>
<td>No limitations applied. Direct head-to-head comparison of PTSD interventions were included. Interventions such as waitlist/minimal attention, usual care, placebo, or other minimally-active treatment (e.g., education or attention control) were categorized as “Controls”</td>
<td>None</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Any overall PTSD outcome</td>
<td>Studies reporting only individual symptoms or symptom clusters without overall PTSD outcome</td>
</tr>
<tr>
<td>Timing</td>
<td>Any study duration and length of followup</td>
<td>None</td>
</tr>
<tr>
<td>Settings</td>
<td>All</td>
<td>None</td>
</tr>
<tr>
<td>Study Design</td>
<td>Randomized controlled trials</td>
<td>Studies that do not have a randomized controlled trial design. Selected systematic reviews will be considered as reference sources for studies to be reviewed for possible inclusion; however, data will be abstracted from individual studies, rather than from systematic reviews.</td>
</tr>
<tr>
<td>Publication Language and Dates</td>
<td>English language articles 1980 to present</td>
<td>Non-English language articles Unpublished data Publication date prior to 1980</td>
</tr>
</tbody>
</table>

DSM = Diagnostic and Statistical Manual of Mental Disorders; PTSD = posttraumatic stress disorder, ICD = International Classification of Diseases
Literature Search Strategy

Multiple databases were searched: PTSDpubs (formerly PILOTS), Ovid®, MEDLINE®, PsycINFO®, Cochrane CENTRAL, Embase®, CINAHL®, and Scopus® through July 15, 2018. Search strategies for PTSDpubs and MEDLINE are provided in Appendix A. The search strategies were developed and conducted by the Pacific Northwest Evidence-based Practice Center (EPC) librarian and peer reviewed by the National Center for PTSD (NCPTSD) librarian. A gray literature (unpublished, or published in sources other than the medical literature) search was not conducted. Due to the nature of the project, an AHRQ portal for submission of Supplemental Evidence And Data for Systematic review (SEADS) was not requested.

NCPTSD identified 20 studies22-41 (“exemplars”) that were expected to be screened for inclusion in the technical brief and that highlighted challenging decision points in reviewing the literature on posttraumatic stress disorder (PTSD) treatment RCTs. In addition, studies included in the Veterans Affairs/Department of Defense (VA/DoD) clinical practice guideline9 and in the recent AHRQ review of PTSD42 were identified for review.

PICOTS and criteria in Table 1 were used to determine eligibility for inclusion and exclusion of citations (title/abstract review) as well as for full-text inclusion. Tables 2 and 3 illustrate the range of interventions that might be included. Due to the breadth of interventions for (PTSD) this list is not comprehensive and some interventions may not be included here. For studies deemed potentially includable at the title/abstract review stage, the full-text was pulled. Each full-text article was independently reviewed for eligibility, and disagreements were resolved by consensus of the team. No additional articles were suggested by peer reviewers or during the public comment period of the draft report.

Table 2. Pharmacologic intervention examplesa

<table>
<thead>
<tr>
<th>Pharmacologic Treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Antiadrenergic drugs (e.g., clonidine, guanfacine, propranolol)</td>
</tr>
<tr>
<td>• Antidepressants (e.g., SSRIs, SNRIs, TCAs, MAOIs, other)</td>
</tr>
<tr>
<td>• Antipsychotics (1st and 2nd generation)</td>
</tr>
<tr>
<td>• Benzodiazepines</td>
</tr>
<tr>
<td>• Cannabinoids (e.g., cannabidiol, dronabinol, tetrahydrocannabinol)</td>
</tr>
<tr>
<td>• Mood stabilizers (e.g., anticonvulsants, lithium)</td>
</tr>
<tr>
<td>• Psychostimulants (e.g., MDMA, amphetamine, methylphenidate, modafanil)</td>
</tr>
<tr>
<td>• Sedatives (e.g., diphenhydramine, eszopiclone)</td>
</tr>
<tr>
<td>• Steroids (e.g., dehydroepiandrosterone, hydrocortisone)</td>
</tr>
<tr>
<td>• Miscellaneous (e.g., D-cycloserine, ketamine, mifepristone, others)</td>
</tr>
</tbody>
</table>

aAdapted from the Department of Veterans Affairs and the Department of Defense Clinical Practice Guideline for the Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 3.0; 2017.9

MAOI = monoamine oxidase inhibitor; MDMA = 3,4-methylenedioxy-methamphetamine; SNRI = serotonin and norepinephrine reuptake inhibitor; SSRI = selective serotonin reuptake inhibitor; TCA = tricyclic antidepressant.
Table 3. Nonpharmacologic intervention categories with examplesa

<table>
<thead>
<tr>
<th>Nonpharmacologic Biological Treatments</th>
<th>Complementary and Integrative Treatments</th>
<th>Psychotherapeutic Treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Biofeedback (including neurofeedback)</td>
<td>• Acupuncture</td>
<td>• Behavioral activation</td>
</tr>
<tr>
<td>• Convulsive therapy</td>
<td>• Animal-assisted therapy</td>
<td>• Brief eclectic psychotherapy</td>
</tr>
<tr>
<td>• Electric shock therapy</td>
<td>• Art therapy</td>
<td>• Cognitive behavioral therapy (CBT)</td>
</tr>
<tr>
<td>• Electroconvulsive therapy (ECT)</td>
<td>• Dietary supplements</td>
<td>• Cognitive processing therapy (CPT)</td>
</tr>
<tr>
<td>• Hyperbaric oxygen therapy (HBOT)</td>
<td>• Drama therapy</td>
<td>• Couples therapy</td>
</tr>
<tr>
<td>• Repetitive transcranial magnetic stimulation (TMS)</td>
<td>• Exercise therapy (e.g., dance)</td>
<td>• Eye movement desensitization and reprocessing (EMDR)</td>
</tr>
<tr>
<td>• Shock therapy</td>
<td>• Homeopathy</td>
<td>• Interpersonal therapy (IPT)</td>
</tr>
<tr>
<td>• Stellate ganglion block (SGB)</td>
<td>• Mantram</td>
<td>• Present-centered therapy</td>
</tr>
<tr>
<td>• Vagal nerve stimulation (VNS)</td>
<td>• Meditation (including mindfulness)</td>
<td>• Prolonged exposure (PE)</td>
</tr>
</tbody>
</table>


Technical Expert Panel, Peer Review, and Public Comment

The Evidence-based Practice Center (EPC) convened a multidisciplinary Technical Expert Panel (TEP) whose members represented a range of clinical and research perspectives on PTSD treatments, including pharmacologic and nonpharmacologic interventions and combination therapies. Three conference calls were held in April and May 2018. The Technical Experts were invited to review the draft protocol and provide feedback. The following are examples of questions posed to the group.

1. Please review the PICOTS and inclusion/exclusion criteria in the attached protocol. Do you have any questions or feedback about these?
2. Given that the scope of the project is limited to 400 studies, we may not be able to include all of the available randomized controlled trials (RCTs). Which types of evidence are more/less important to include at this stage (e.g., based on timing of study, clinical population or group, outcomes reported, time point of outcome assessment, or sample size).
3. Can you comment on new or “emerging” interventions that we should include and also on interventions that are no longer relevant that we should not include?
4. Are there any particularly complex or confusing issues we should be aware of or can plan for during the data abstraction process?
5. What are your ideas about future uses for this type of database?

Based on the open-ended questions that we posed to the TEP members, we received input that ultimately helped to shape the final scope, eligibility criteria, and components of data abstraction for this project. For example, we did not institute a sample size threshold for
inclusion given feedback that many psychotherapeutic treatment trials, older trials, and trials investigating emerging interventions have small samples. Similarly, we did not exclude older studies from the data set.

In response to TEP feedback, we augmented the data abstraction template to include sexual orientation, ethnicity (separately from race), previous posttraumatic stress disorder (PTSD) treatment, inclusion/exclusion of suicidal participants, psychotherapist level of training, type of index trauma, duration since trauma (or illness), and mean number of trauma types and events experienced, and definition of PTSD diagnosis (e.g., DSM-IV, DSM-5, ICD-10). These elements help to portray study characteristics that will allow stakeholders to identify studies relevant to their areas of interest.

Although abstraction of symptom cluster outcomes may be helpful, we could not accommodate this due to time and resource constraints. However, as a compromise and to prepare for possible future stages of this project, we indicated which studies reported item- and symptom-level outcomes. While individual participant-level data, additional data elements (e.g., symptom-level data and treatment fidelity for psychotherapy interventions), other study designs (e.g., nonrandomized trials, unpublished trials), and quality or risk-of-bias assessment for included studies may also be desirable we could not incorporate or address these elements in this current work plan, and these are potential additions for any future expansion of this project.

A draft of this report was distributed to peer reviewers, and all TEP members were invited to comment as well. A revised draft was subsequently posted on the AHRQ website for public comment. The EPC team carefully considered all comments received and made appropriate revisions for the final report.

**Data Abstraction and Data Management**

We constructed two evidence tables identifying the study characteristics and results of interest for all included studies. The evidence tables were developed using Microsoft Excel® and include components from the statement of work and additional elements based on discussions with NCPTSD representatives and the Technical Expert Panel. The NCPTSD partner reviewed and approved updates and changes to the evidence tables at weekly meetings with AHRQ Task Order Officers and the EPC investigators. Future plans for converting the abstracted data into a searchable and interactive repository will be handled by NCPTSD.

After studies were deemed to meet inclusion criteria, team members abstracted the study design, year, setting, country, sample size, eligibility criteria, study characteristics, population characteristics, intervention characteristics, results relevant to the Guiding Questions, and sources of funding, following instructions in the project data abstraction guide (Appendix B). A senior team member verified data abstracted from included studies (listed in Appendix C) for accuracy and completeness. A record of studies excluded at the full-text level with reasons for exclusion was maintained (Appendix D). Risk of bias (quality assessment) was not conducted.
Findings

Results of Literature Searches

The search and selection of articles are summarized in the literature flow diagram (Figure 1). Database searches and examination of other sources resulted in 7,842 potentially relevant articles. After review of abstracts and titles, 1,101 articles were selected for full-text review, and 318 studies were determined to meet inclusion criteria and were designated for data abstraction. Reasons for exclusion of studies were ineligible population, intervention, outcomes, study design, publication type, and foreign language articles.

Figure 1. Literature flow diagram

Records identified through database searching (n = 17,028) → Additional records identified through other sources (n = 444) → Records after duplicates removed (n = 7,842) → Records screened (n = 7,842) → Records excluded (n = 6,742) → Full-text articles assessed for eligibility (n = 1,101) → Studies included (n studies = 318a in 406 publications) → Companion with additional outcomes, n = 17 Companion without additional outcomes, n = 72 → Full-text articles excluded, with reasons (n studies = 663 in 695 publications) Ineligible population, n = 256 Ineligible intervention, n = 82 Ineligible comparison, n = 2 Ineligible outcome, n = 110 Ineligible study design, n = 111 Ineligible publication type, n = 100 Non-English language, n = 6 Companion to excluded study, n = 28

a Bedura-Brock, 2015: is a single publication that includes 2 studies
Included Studies

We identified 318 randomized controlled trials (RCTs) of interventions for posttraumatic stress disorder (PTSD) as includable and designated for data abstraction. The included studies list appears in Appendix C. Appendix D lists studies excluded upon full-text review and documents the reasons for exclusion.

The evidence tables (Appendixes E and F) for this report present detailed information on study and population characteristics and study outcomes for 106 studies of pharmacologic interventions25,27,34,40,41,43-143 (Appendix E) and 212 studies of nonpharmacologic interventions, which included nonpharmacologic biological treatments, complementary and integrative treatments, and psychotherapeutic treatments22,23,26,28,30-32,35,36,38,144-344 (Appendix F). Studies with any pharmacologic treatment component, whether singly (e.g., pharmacologic vs. placebo), in combination with treatment in another category (e.g., psychotherapy plus pharmacologic treatment vs. psychotherapy plus pill placebo), or directly compared with another intervention category (e.g., pharmacologic treatment vs. psychotherapeutic treatment), were all included in the pharmacologic evidence table. This classification stems from the observation that most studies with a pharmacologic component examined the potential additional benefits of the pharmacologic component or arm (e.g., as a standalone arm or as an augmentation or add-on to another intervention). Studies without any pharmacologic arm were categorized into the nonpharmacologic table. The National Center for Posttraumatic Stress Disorder (NCPTSD) identified 20 studies as exemplars to be considered in designing and testing the screening criteria and evidence table template,22-41 of which 15 studies are included in the evidence tables.22,23,25-28,30-32,34-36,38,40,41 Of the 20 exemplars identified, 5 were excluded as they did not meet the final inclusion criteria, and those 5 do not appear in the evidence tables.24,29,33,37,39 Appendix D provides the specific reasons for exclusion.

Characteristics of Included Studies

We evaluated the characteristics of the 318 included studies based on year of study publication, treatment type (pharmacologic, nonpharmacologic, and subtype of nonpharmacologic), study sample size, study population demographics, proportion of military/veteran participants, PTSD assessment method, study setting variables, and study reporting of trauma type and number of traumas. The publication dates of the included studies range from 1988 to July of 2018 (Figure 2). The number of studies published per year increased in the 2000s, reaching a peak of 31 in 2015. This increase was seen particularly with nonpharmacologic intervention studies—26 nonpharmacologic studies were published in 2015, compared with 5 pharmacologic studies.
Studies were distributed broadly across the two treatment types, nonpharmacologic and pharmacologic. Studies investigating combination pharmacologic and nonpharmacologic therapies typically applied the same psychotherapy to both experimental and control (placebo) arms. Most included studies used only nonpharmacologic interventions (212/318, or approximately 67%); whereas 106/318 studies (33%) used one or more pharmacologic components.

In addition to these two overarching categories (pharmacologic and nonpharmacologic), each represented by separate evidence tables in this Technical Brief, we also identified individual treatment arms within each study. Study arms were classified by intervention categories that align with the 2017 Department of Veterans Affairs/Department of Defense clinical practice guideline, as recommended by the Technical Expert Panel and NCPTSD. These categories include pharmacologic treatments and three nonpharmacologic treatment subtypes, which are nonpharmacologic biological treatments, complementary and integrative treatments, and psychotherapeutic treatments (Figure 3). Psychotherapeutic intervention was the most frequently studied treatment, employed in 55 percent of the total number of included studies, followed by pharmacologic intervention in 33 percent of studies. Multicomponent treatment consisting of different intervention categories within a single arm of the study were labeled as “mixed” interventions. Specific intervention categories were listed in the evidence tables (Appendix E and F).
Figure 3. Distribution of treatment arms by VA/DoD CPG intervention category

- Mixed, 3
- Nonpharm - Biological, 14
- Nonpharm - Complementary and Integrative, 31
- Pharmacologic, 106
- Nonpharm - Psychotherapeutic, 175

*Studies may have more than one treatment arm

CPG = clinical practice guideline; DoD = Department of Defense; VA = Department of Veterans Affairs; Nonpharm = nonpharmacologic interventions
Figure 4 shows the overall distribution of sample sizes for the included studies. The majority of studies (60%) had sample sizes in the range of 25 to 100 participants, and a relatively small number of studies enrolled fewer than 25 participants (57 studies or 18%).

Figure 4. Studies by sample size
Figures 5 through 7 characterize studies by setting, including country, population type, and clinical setting where the intervention was delivered. The majority of included studies were conducted in the United States (61%), and more participants were enrolled from a community population (57%) than a military, veteran, or other population for both pharmacologic and nonpharmacologic RCTs. The majority of studies were conducted in the outpatient setting (73%).

**Figure 5. Distribution of included studies by country**

![Distribution of included studies by country](image)

- Australia
- Canada
- Germany
- Iran
- Israel
- Norway
- The Netherlands
- U.K.
- U.S.
- Other/Mixed

**Number of Studies**

- Pharmacologic Studies (n=106)
- Nonpharmacologic Studies (n=212)
Figure 6. Distribution of included studies by population type

- Active Duty Military
- Veteran
- Community
- Mixed
- Unknown

Population Type

- Pharmacologic Studies (n=106)
- Nonpharmacologic Studies (n=212)

Mixed = Any combination of Active Duty Military, Veteran, and Community based population

Figure 7. Distribution of included studies by clinical setting

- Acute Inpatient
- Residential Inpatient
- Outpatient Clinic
- Primary Care Clinic
- Telehealth
- Mixed
- Other/Undeclear/NR

NR = not reported
Some studies targeted specific types of trauma (e.g., required participants to have experienced combat-related trauma or sexual assault), though in most cases other additional trauma types were allowed. Other studies did not target specific types of trauma and included multiple types. The distribution of included studies by trauma type are shown in Figure 8, with “mixed” trauma types being most prevalent among these study populations (50%), followed by combat-related trauma (19%).

**Figure 8. Distribution of included studies by trauma type**

Numerous instruments, whether administered by clinicians or self-reported by patients, were used to diagnose PTSD and assess participants’ eligibility for study entry. Figure 9 shows the most commonly used PTSD assessment methods found in the 318 RCTs, with the Clinician-Administered PTSD Scale (CAPS), the Structured Clinical Interview for DSM (SCID), and clinician-assessed Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria being the most commonly used assessment methods. In some instances, the instrument used to diagnose PTSD differed from the instrument used to assess the PTSD outcome throughout the treatment and/or at followup (e.g., CAPS may have been used to determine PTSD diagnosis and eligibility, but only the PTSD checklist [PCL] was used to track symptom severity changes longitudinally in some studies).
Table 4 shows the number of studies that included a subthreshold PTSD population and the number of studies that reported loss of PTSD diagnosis or clinically meaningful response as an outcome. Overall, less than half of the included studies reported any of these outcomes, particularly loss of PTSD diagnosis in the pharmacologic RCTs (only 16% reported this outcome). Few studies included participants with subthreshold PTSD (no pharmacologic RCTs and only 1 percent of the nonpharmacologic RCTs). However, studies including more than 20 percent of participants with subthreshold PTSD were excluded, and therefore these data should be interpreted in the context of being from a pool of RCTs with 80 to 100 percent of participants having a full rather than subthreshold PTSD diagnosis.
Table 4. Number of studies reporting data element of interest

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Pharmacologic Studies Reporting Data Element, % (n/N)</th>
<th>Nonpharmacologic Studies Reporting Data Element, % (n/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included Subthreshold PTSD</td>
<td>0% (0/106)</td>
<td>&lt;1% (1/212)</td>
</tr>
<tr>
<td>Loss of PTSD Diagnosis</td>
<td>16% (17/106)</td>
<td>40% (84/212)</td>
</tr>
<tr>
<td>Clinically Meaningful Response/Remission for PTSD</td>
<td>55% (58/106)</td>
<td>38% (81/212)</td>
</tr>
</tbody>
</table>

PTSD = posttraumatic stress disorder

Finally, we found that studies did not consistently report all data elements that were intended to be abstracted for this Technical Brief. Table 5 displays the prevalence of missing data across both pharmacologic and nonpharmacologic studies. These particular data elements were selected, with guidance from the Technical Expert Panel and NCPTSD, for their relevance to current research and clinical practice. As seen in Table 5, there are several data elements that are more likely to be missing from both types of studies. For instance, history and number of traumatic brain injuries among participants is reported in only a small number of nonpharmacologic (9%) and pharmacologic (11%) studies. In addition, almost none of the pharmacologic studies reported the mean number of trauma types experienced per participant.

Table 5. Lack of reporting by evidence categorya

<table>
<thead>
<tr>
<th>Evidence Table Category</th>
<th>Data Element</th>
<th>Pharmacologic Studies Missing Data Element, % (n/N)</th>
<th>Nonpharmacologic Studies Missing Data Element, % (n/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Characteristics</td>
<td>Nonpharmacologic treatment provider education level</td>
<td>NA</td>
<td>28% (60/212)</td>
</tr>
<tr>
<td></td>
<td>Allowed PTSD or other psychotherapy co-intervention?</td>
<td>76% (81/106)</td>
<td>52% (110/212)</td>
</tr>
<tr>
<td></td>
<td>PTSD assessment method threshold</td>
<td>19% (20/106)</td>
<td>43% (91/212)</td>
</tr>
<tr>
<td>Population Characteristics</td>
<td>Duration of PTSD symptoms</td>
<td>54% (57/106)</td>
<td>64% (135/212)</td>
</tr>
<tr>
<td></td>
<td>Comorbid traumatic brain injury</td>
<td>89% (94/106)</td>
<td>91% (192/212)</td>
</tr>
<tr>
<td></td>
<td>Comorbid substance use disorder</td>
<td>19% (20/106)</td>
<td>45% (96/212)</td>
</tr>
<tr>
<td></td>
<td>Number trauma types per participant</td>
<td>98% (104/106)</td>
<td>91% (193/212)</td>
</tr>
<tr>
<td></td>
<td>Number of traumatic events per participant</td>
<td>96% (102/106)</td>
<td>81% (172/212)</td>
</tr>
<tr>
<td>Intervention Characteristics</td>
<td>Definition of treatment completion or adherence</td>
<td>73% (77/106)</td>
<td>56% (119/212)</td>
</tr>
<tr>
<td></td>
<td>Pharmacologic intervention treatment adherence or completion</td>
<td>75% (80/106)</td>
<td>NA</td>
</tr>
<tr>
<td>PTSD Outcomes</td>
<td>Within-group effect size or p-value</td>
<td>79% (84/106)</td>
<td>38% (81/212)</td>
</tr>
<tr>
<td></td>
<td>Score difference from baseline between groups</td>
<td>83% (88/106)</td>
<td>84% (178/212)</td>
</tr>
</tbody>
</table>

aWe calculated within group score difference from baseline when possible, resulting in fewer gaps in the evidence tables even when these data were not reported in publications.
NA = not applicable; PTSD = posttraumatic stress disorder
Summary and Implications

This data abstraction project was undertaken with guidance from the National Center for PTSD (NCPTSD) and Technical Expert Panel (TEP) to create evidence tables that can be used for a data repository of randomized controlled trials (RCTs) evaluating treatments for posttraumatic stress disorder (PTSD). This repository will eventually serve a variety of clinical, research, and policy purposes. To accomplish this goal, we developed detailed evidence tables informed by discussions with the TEP and NCPTSD. These discussions emphasized how to scope the current project, which data elements and studies to abstract, how to maintain data accuracy and relevance in large evidence tables, and potential next steps for the planned data repository.

The 318 included studies identified for this report were published from 1988 through 2018. Research on PTSD interventions greatly increased during the last decade, which is not surprising given the early research on the Operation Enduring Freedom and Operation Iraqi Freedom conflicts published in 2008, which showed a high prevalence of PTSD among deployed service members. Heightened awareness of PTSD prevalence and its negative impacts on quality of life and functioning likely spurred interest in research to develop and assess effective interventions to treat the disorder, and associated funding increases by the Department of Defense also likely increased the amount of research conducted on PTSD during this timeframe.

The PTSD evidence tables (Appendixes E and F) for this report are extensive and more detailed than the typical systematic review evidence tables, reflecting the objective of displaying detailed data elements in a data repository that will eventually be formatted for public availability. We devoted considerable time and attention to developing standard conventions for recording data (e.g., abbreviations, data formatting) and data abstraction instructions to ensure consistent and comprehensive reporting of the many elements of study data being abstracted for this repository.

Variations in study designs and approaches to reporting presented many challenges to the data abstractors. For example, some studies reported difference in change from baseline between groups, while some reported only within-group change from baseline or endpoint difference between groups. For other studies, determining which outcomes were primary PTSD outcomes and which were secondary was difficult, particularly in studies that report many outcomes. In some instances, the RCT may have analyzed a primary outcome other than PTSD, for example, anxiety or sleep outcomes. However, provided that a study analyzed and reported an overall PTSD outcome, the study was included in the evidence tables. In some instances, distinguishing harms from negative outcomes (i.e., unintended adverse consequences of treatment vs. lack in efficacy of the intervention) was challenging, and many studies of both pharmacologic and nonpharmacologic interventions did not report details about adverse events. For some data elements, standardization was not possible, and our data abstraction was guided by what the study reported and how the study reported the data (e.g., labeling of control interventions as placebo, usual care, minimal intervention, active placebo etc.; gender categories and/or sexual orientation; current or historical substance use disorder or depression; clinically meaningful response; loss of diagnosis as an outcome). Lastly, gaps in reporting of certain data elements meant that some study abstractions may seem incomplete because, while no evidence table cells were left empty, there are many cells that say only “not reported” (NR). Recognition of these gaps may help future researchers to report study methods and results more comprehensively.
Next Steps

The completion of this project signifies the end of one phase for development of the data repository. The National Center for Posttraumatic Stress Disorder (NCPTSD) will create the anticipated searchable and interactive repository as part of future stages of this project, using the current work as a foundation. Future additions to the repository could include outcomes for posttraumatic stress disorder (PTSD) symptom clusters, item-level data, subgroup analyses (e.g., to provide data on what works for whom), participant populations with >20 percent subthreshold PTSD, broader PTSD diagnostic criteria applied for inclusion, interventions with a dual diagnoses focus (e.g., treating comorbid PTSD and substance use disorders), interventions designed to prevent PTSD, non-randomized trials or other types of observational studies, and quality or risk of bias assessment. We base these suggestions on our interaction with the evidence base, the Technical Expert Panel (TEP), and NCPTSD, the sponsoring partner with the Agency for Healthcare Research and Quality for this project. We consulted with the sponsors weekly throughout this project to ensure compatibility with NCPTSD goals for the final data repository and to refine and improve our methods as the evidence tables were being developed. Additionally, we consulted with both the sponsors and with the TEP early in the project to determine the appropriate level of granularity of data for abstraction, ensuring that comprehensiveness of data abstraction balanced with feasibility of data presentation and interpretation. Many of the recommendations by the TEP and NCPTSD emphasized the potential uses for such a repository, highlighting how adding variables, outcomes, subpopulations, risk of bias assessment, and other studies in the future could be useful to researchers, policymakers, clinicians, and patients. These comments provide a guide for future work in developing the evidence content of the repository; our experience with the studies suggests that the evidence base is available to support these next steps.


**Abbreviations and Acronyms**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHRQ</td>
<td>Agency for Healthcare Research and Quality</td>
</tr>
<tr>
<td>BEP</td>
<td>brief eclectic psychotherapy</td>
</tr>
<tr>
<td>CAPS</td>
<td>Clinician-Administered PTSD Scale</td>
</tr>
<tr>
<td>CBT</td>
<td>cognitive behavioral therapy</td>
</tr>
<tr>
<td>CPG</td>
<td>Clinical Practice Guideline</td>
</tr>
<tr>
<td>CPT</td>
<td>cognitive processing therapy</td>
</tr>
<tr>
<td>DoD</td>
<td>Department of Defense</td>
</tr>
<tr>
<td>DSM</td>
<td>Diagnostic and Statistical Manual of Mental Disorders</td>
</tr>
<tr>
<td>EMDR</td>
<td>eye movement desensitization and reprocessing</td>
</tr>
<tr>
<td>EPC</td>
<td>Evidence-based Practice Center</td>
</tr>
<tr>
<td>FDA</td>
<td>U.S. Food and Drug Administration</td>
</tr>
<tr>
<td>MST</td>
<td>Military Sexual Trauma</td>
</tr>
<tr>
<td>NCPTSD</td>
<td>National Center for Posttraumatic Stress Disorder</td>
</tr>
<tr>
<td>NESARC-III</td>
<td>National Epidemiologic Survey on Alcohol and Related Conditions-III</td>
</tr>
<tr>
<td>NET</td>
<td>narrative exposure therapy</td>
</tr>
<tr>
<td>NR</td>
<td>not reported</td>
</tr>
<tr>
<td>PE</td>
<td>prolonged exposure</td>
</tr>
<tr>
<td>PICOTS</td>
<td>Population, Intervention, Comparator, Outcomes, Timing, Setting, and Study design</td>
</tr>
<tr>
<td>PTSD</td>
<td>Posttraumatic Stress Disorder</td>
</tr>
<tr>
<td>RCT</td>
<td>randomized controlled trial</td>
</tr>
<tr>
<td>SEADS</td>
<td>Supplemental Evidence And Data for Systematic review</td>
</tr>
<tr>
<td>SNRI</td>
<td>serotonin-norepinephrine reuptake inhibitor</td>
</tr>
<tr>
<td>SSRI</td>
<td>selective serotonin reuptake inhibitor</td>
</tr>
<tr>
<td>VA</td>
<td>U.S. Department of Veterans Affairs</td>
</tr>
</tbody>
</table>
Appendix A. Literature Search Strategies

Database: Ovid MEDLINE®, Ovid MEDLINE® In-Process & Other Non-Indexed Citations

Pharmacologic interventions

1. stress disorders, post-traumatic/
2. ("posttraumatic stress disorder" or "post traumatic stress disorder" or PTSD).ti,ab.
3. exp Drug Therapy/
4. dt.fs.
5. (medication* or pharmacologic* or pharmaco-therap* or pharmacotherap*).ti,ab.
6. (drug* adj2 (therap* or treatment*)).ti,ab.
7. exp Adrenergic alpha-Antagonists/ or Sympatholytics/ or Doxazosin/ or Prazosin/
8. ("adrenergic alpha antagonist*" or "adrenergic receptor block*" or "alpha adrenergic antagonist*" or "alpha block*" or antiadrenergic* or doxazosin or prazosin or sympatholytic* or terazosin).ti,ab.
9. exp Antipsychotic Agents/
10. ("anti-psychotic*" or antipsychotic* or FGA* or SGA* or aripiprazole or asenapine or brexipiprazole or cariprazine or chlorpromazine or clozapine or fluphenazine or haloperidol or iloperidone or loxapine or olanzapine or paliperidone or perphenazine or pimozide or quetiapine or risperidone or thioridazine or thiothixene or trifluoperazine or ziprasidone).ti,ab.
11. exp Benzodiazepines/
12. (alprazolam or benzodiazepine* or benzodiazepinone* or chlordiazepoxide or clonazepam or clorazepate or diazepam or estazolam or flurazepam or lorazepam or midazolam or oxazepam or quazepam or temazepam or triazolam).ti,ab.
13. exp Monoamine Oxidase Inhibitors/
14. ("monoamine oxidase" adj2 inhibitor*) or MAOI or isocarboxazid or phenelzine or selegiline or tranylcypromine).ti,ab.
15. carbamazepine/ or clonidine/ or lithium/ or pregabalin/ or valproic acid/
16. exp Anticonvulsants/
17. exp Antimanic Agents/
18. exp Cyclohexanecarboxylic Acids/
19. (anticonvuls* or carbamazepine or clonidine or divalproex or gabapentin or lamotrigine or lithium or oxcarbazepine or pregabalin or tiagabine or topiramate or valproate or "valproic acid").ti,ab.
20. exp "hypnotics and sedatives"/ or exp anti-anxiety agents/
21. ("anti anxiety" or antianxiety or buspirone or diphendydramine or eszopiclone or guanfacine or hydroxyzine or hypnotic* or ramelteon or sedative* or suvorexant or tasimelteon or zaleplon or zolpidem or zopiclone).ti,ab.
22. exp Antidepressive Agents/
23. (antidepressant* or "anti-depressant*" or "selective serotonin" or (serotonin adj3 reuptake) or SNRI* or SSRI* or tricyclic or amitriptyline or amoxapine or bupropion or citalopram or clomipramine or desipramine or desvenlafaxine or doxepin or duloxetine or escitalopram or fluoxetine or fluvoxamine or hydroxyzine or imipramine or levomilnacipran or maprotiline or milnacipran or mirtazapine or nefazodone or nor triptyline or paroxetine or protriptyline or sertraline or trazadone or trimipramine or venlafaxine or vilazodone or vortioxetine).ti,ab.
24. exp Amphetamines/
25. (amphetamine or armodafanil or atomoxetine or dexamethylphenidate or dextroamphetamine or lisdexamphetamine or MDMA or methamphetamine or methylphenidate or modafanil).ti,ab.
26. exp Steroids/
27. (DHEA or hydrocortisone or steroid*).ti,ab.
28. exp Cannabinoids/
29. Cannabis/
30. Medical Marijuana/
31. (cannabi* or marijuana or tetrahydrocannabinol or THC).ti,ab.
32. ketamine/
33. ketamine.ti,ab.
34. Propranolol/
35. propranolol.ti,ab.
36. exp Randomized Controlled Trials as Topic/
37. exp Randomized Controlled Trial/
38. double-blind method/ or random allocation/ or single-blind method/
39. Placebos/
40. (random* or control* or trial or sham or placebo* or blind* or dumm* or mask*).ti,ab,kw.
41. (1 or 2) and (or/3-35)
42. 41 and (or/36-40)

Nonpharmacologic interventions
1. stress disorders, post-traumatic/
2. ("posttraumatic stress disorder" or "post traumatic stress disorder" or PTSD).ti,ab.
3. th.fs.
4. exp Psychotherapy/
5. exp Complementary Therapies/
6. exp Convulsive Therapy/
7. Hyperbaric Oxygenation/
8. Transcranial Magnetic Stimulation/
9. exp Rehabilitation/
10. exp Dietary Supplements/
11. exp "Delivery of Health Care, Integrated"/
12. exp Self-Help Groups/
13. exp peer group/
14. exp social support/
15. exp Telemedicine/
16. telephone/ or exp cell phone/
17. (therap* or psychotherap* or counsel* or nonpharma* or non-pharma*).ti,ab.
18. ("alternative medicine" or acupuncture or "animal assist*" or art or "cell phone" or "cognitive behavior*" or CBT or complementary or dance or drama or electroconvulsive or ECT or exercise or "eye movement desensitization and reprocessing" or EMDR or family or "hyperbaric oxygen*" or integrated or meditation or "mind body" or mindfulness or music or "prolonged exposure" or relaxation or "seeking safety" or "self help" or "tai chi" or "tai ji" or "text messag*" or "transcranial magnetic stimulation" or TMS or yoga).ti,ab.
19. exp Randomized Controlled Trials as Topic/
20. exp Randomized Controlled Trial/
21. double-blind method/ or random allocation/ or single-blind method/
22. (random* or control* or trial or sham or blind* or dum* or mask*).ti,ab,kw.
23. (1 or 2) and (or/3-18)
24. 23 and (or/19-22)

**Database: ProQuest Published International Literature On Traumatic Stress (PILOTS)**

(MAINSUBJECT.EXACT("PTSD") OR MAINSUBJECT.EXACT("PTSD (DSM-III-R)") OR
MAINSUBJECT.EXACT("PTSD (DSM-III)") OR MAINSUBJECT.EXACT("PTSD (DSM-
IV)") OR MAINSUBJECT.EXACT("PTSD (DSM-5)") OR
MAINSUBJECT.EXACT("Complex PTSD") OR MAINSUBJECT.EXACT("PTSD (ICD-11)")
OR MAINSUBJECT.EXACT("PTSD (ICD-10)") OR MAINSUBJECT.EXACT("PTSD (ICD-
9") OR (ptsd OR "posttraumatic stress disorder" OR "post-traumatic stress disorder") AND
(MAINSUBJECT.EXACT("Randomized Clinical Trial") OR ti(random* OR control* OR trial))

Additional limits: Scholarly Journals
Appendix B. Data Abstraction Guide for Posttraumatic Stress Disorder Randomized Clinical Trials

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# Chapter 1. Inclusion and Exclusion Criteria

## Table B-1. Inclusion and exclusion criteria

<table>
<thead>
<tr>
<th>Category</th>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
</table>
| **Population**    | Adults (≥18 years old) with a PTSD diagnosis (DSM-III, DSM-III-R, DSM-IV, DSM-IV-TR, DSM-5, ICD-9, or ICD-10) diagnosed by a clinician or through the administration of a validated clinician-administered or patient-reported assessment tool | Children (<18 years old)  
Diagnosis of acute stress disorder  
Studies that do not specify criteria used to diagnose PTSD  
Sample population <80% of participants diagnosed with PTSD |
| **Interventions** | Pharmacologic treatments—studies with any pharmacologic component, whether singly, in combination with other treatment categories, or compared with another intervention category  
Nonpharmacologic treatments—interventions without any pharmacologic component; including complementary and integrative approaches, nonpharmacologic biological treatments, and psychotherapeutic treatments | Interventions designed to simultaneously treat PTSD and comorbid conditions if they cannot be standalone PTSD interventions (e.g., interventions targeting PTSD and a comorbidity such as depression are included if the intervention can be a treatment for PTSD alone)  
Interventions designed to prevent PTSD |
| **Comparators**   | No limitations applied. Direct head-to-head comparison of PTSD interventions were included. Interventions such as waitlist/minimal attention, usual care, placebo, or other minimally-active treatment (e.g. education or attention control) were categorized as “Controls” | None |
| **Outcomes**      | Any overall PTSD outcome                                                          | Studies reporting only individual symptoms or symptom clusters without overall PTSD outcome |
| **Timing**        | Any study duration and length of followup                                          | None |
| **Settings**      | All                                                                                | None |
| **Study Design**  | Randomized controlled trials                                                      | Studies that do not have a randomized controlled trial design. Selected systematic reviews will be considered as reference sources for studies to be reviewed for possible inclusion; however, data will be abstracted from individual studies, rather than from systematic reviews. |
| **Publication Language and Dates** | English language articles  
1980 to present                                                             | Non-English language articles  
Unpublished data  
Publication date prior to 1980 |

DSM = Diagnostic and Statistical Manual of Mental Disorders; PTSD = Posttraumatic Stress Disorder
## Chapter 2. Intervention Categories With Examples

<table>
<thead>
<tr>
<th>Pharmacologic Treatments</th>
<th>Nonpharmacologic Biological Treatments</th>
<th>Complementary and Integrative Treatments</th>
<th>Psychotherapeutic Treatments</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antiadrenergic drugs (e.g., clonidine, guanfacine, propranolol)</td>
<td>Biofeedback (including neurofeedback)</td>
<td>Acupuncture</td>
<td>Accelerated Resolution Therapy</td>
<td>Placebo</td>
</tr>
<tr>
<td>Antidepressants (e.g., SSRI’s, SNRI’s, TCA’s, MAOI’s, other)</td>
<td>Convulsive therapy</td>
<td>Animal-Assisted Therapy</td>
<td>Acceptance and Commitment Therapy (ACT)</td>
<td>Psychoeducation</td>
</tr>
<tr>
<td>Antipsychotics (first and second generation)</td>
<td>Electric shock therapy</td>
<td>Art Therapy</td>
<td>Anger Management Therapy</td>
<td>Sham</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Electroconvulsive therapy (ECT)</td>
<td>Dietary Supplements</td>
<td>Attention Control</td>
<td>Treatment as Usual (TAU)</td>
</tr>
<tr>
<td>Cannabinoids (e.g., cannabidiol, dronabinol, tetrahydrocannabinol)</td>
<td>Hyperbaric oxygen therapy (HBOT)</td>
<td>Drama Therapy</td>
<td>Behavioral Activation and Therapeutic Exposure</td>
<td>Waitlist (WL)</td>
</tr>
<tr>
<td>Mood Stabilizers (e.g., anticonvulsants, lithium)</td>
<td>Repetitive transcranial magnetic stimulation (TMS)</td>
<td>Exercise Therapy (e.g., dance)</td>
<td>Brief Eclectic Psychotherapy (BEP)</td>
<td></td>
</tr>
<tr>
<td>Psychostimulants (e.g., MDMA, amphetamine, methylphenidate, modafinil)</td>
<td>Shock therapy</td>
<td>Homeopathy</td>
<td>Brief Psychodynamic Therapy</td>
<td></td>
</tr>
<tr>
<td>Sedatives (e.g., diphenhydramine, eszopiclone)</td>
<td>Stellate ganglion block (SGB)</td>
<td>Hypnosis</td>
<td>Cognitive Behavioral Therapy (CBT)</td>
<td></td>
</tr>
<tr>
<td>Steroids (e.g., dehydroepiandrosterone, hydrocortisone)</td>
<td>Vagal nerve stimulation (VNS)</td>
<td>Mantram Repetition Program (MRP)</td>
<td>Cognitive Behavioral Therapy for Insomnia (CBT for Insomnia)</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous (e.g., D-cycloserine, ketamine, mifepristone, others)</td>
<td></td>
<td>Meditation (including mindfulness)</td>
<td>Cognitive Behavioral Therapy for Sleep (CBT for sleep)</td>
<td></td>
</tr>
<tr>
<td>Antiadrenergic drugs (e.g., clonidine, guanfacine, propranolol)</td>
<td>Biofeedback (including neurofeedback)</td>
<td>Mindfulness-Based Stress Reduction (MBSR)</td>
<td>Cognitive Processing Therapy (CPT)</td>
<td></td>
</tr>
<tr>
<td>Antidepressants (e.g., SSRI’s, SNRI’s, TCA’s, MAOI’s, other)</td>
<td>Convulsive therapy</td>
<td>Movement Therapy</td>
<td>Cognitive Restructuring (CR)</td>
<td></td>
</tr>
<tr>
<td>Antipsychotics (first and second generation)</td>
<td>Electric shock therapy</td>
<td>Music Therapy</td>
<td>Couples Therapy</td>
<td></td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Electroconvulsive therapy (ECT)</td>
<td>Natural products (e.g., gingko biloba, herbs)</td>
<td>Dialectic Behavior Therapy (DBT)</td>
<td></td>
</tr>
<tr>
<td>Cannabinoids (e.g., cannabidiol, dronabinol, tetrahydrocannabinol)</td>
<td>Hyperbaric oxygen therapy (HBOT)</td>
<td>Phytotherapy</td>
<td>Emotional Freedom Techniques</td>
<td></td>
</tr>
<tr>
<td>Mood Stabilizers (e.g., anticonvulsants, lithium)</td>
<td>Repetitive transcranial magnetic stimulation (TMS)</td>
<td>Progressive Muscle Relaxation</td>
<td>Exposure Therapy</td>
<td></td>
</tr>
<tr>
<td>Psychostimulants (e.g., MDMA, amphetamine, methylphenidate, modafinil)</td>
<td>Shock therapy</td>
<td>Psychodrama</td>
<td>Eye Movement Desensitization and Reprocessing (EMDR)</td>
<td></td>
</tr>
<tr>
<td>Sedatives (e.g., diphenhydramine, eszopiclone)</td>
<td>Stellate ganglion block (SGB)</td>
<td>Recreational Therapies (e.g., drama, fishing, sailing)</td>
<td>Graded Exposure Therapy</td>
<td></td>
</tr>
<tr>
<td>Steroids (e.g., dehydroepiandrosterone, hydrocortisone)</td>
<td>Vagal nerve stimulation (VNS)</td>
<td>Tai Chi</td>
<td>Interpersonal Psychotherapy (IPPT)</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous (e.g., D-cycloserine, ketamine, mifepristone, others)</td>
<td></td>
<td>Tai Ji</td>
<td>Mindfulness-Based Exposure Therapy</td>
<td></td>
</tr>
<tr>
<td>Antiadrenergic drugs (e.g., clonidine, guanfacine, propranolol)</td>
<td>Biofeedback (including neurofeedback)</td>
<td>Yoga</td>
<td>Narrative Exposure Therapy (NET)</td>
<td></td>
</tr>
<tr>
<td>Antidepressants (e.g., SSRI’s, SNRI’s, TCA’s, MAOI’s, other)</td>
<td>Convulsive therapy</td>
<td></td>
<td>Present-Centered Therapy (PCT)</td>
<td></td>
</tr>
<tr>
<td>Antipsychotics (first and second generation)</td>
<td>Electric shock therapy</td>
<td></td>
<td>Prolonged Exposure (PE)</td>
<td></td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Electroconvulsive therapy (ECT)</td>
<td></td>
<td>Psychoanalysis</td>
<td></td>
</tr>
<tr>
<td>Cannabinoids (e.g., cannabidiol, dronabinol, tetrahydrocannabinol)</td>
<td>Hyperbaric oxygen therapy (HBOT)</td>
<td></td>
<td>Seeking Safety</td>
<td></td>
</tr>
<tr>
<td>Mood Stabilizers (e.g., anticonvulsants, lithium)</td>
<td>Repetitive transcranial magnetic stimulation (TMS)</td>
<td></td>
<td>Skills Training in Affect and Interpersonal Regulation (STAIR)</td>
<td></td>
</tr>
<tr>
<td>Psychostimulants (e.g., MDMA, amphetamine, methylphenidate, modafinil)</td>
<td>Shock therapy</td>
<td></td>
<td>Stress Inoculation Training (SIT)</td>
<td></td>
</tr>
<tr>
<td>Sedatives (e.g., diphenhydramine, eszopiclone)</td>
<td>Stellate ganglion block (SGB)</td>
<td></td>
<td>Supportive Counseling</td>
<td></td>
</tr>
<tr>
<td>Steroids (e.g., dehydroepiandrosterone, hydrocortisone)</td>
<td>Vagal nerve stimulation (VNS)</td>
<td></td>
<td>Trauma Management Therapy</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous (e.g., D-cycloserine, ketamine, mifepristone, others)</td>
<td></td>
<td></td>
<td>Written Emotional Disclosure</td>
<td></td>
</tr>
</tbody>
</table>

**Chapter 3. PTSD Measures**

Primary PTSD outcome measure priority order:
1. Clinician-administered measures, in order as listed in Table B-3.
2. Self-report measures, in order as listed in Table B-4.

### Table B-3. Clinician-administered PTSD measures in priority order for primary outcome

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPS</td>
<td>Clinician-Administered PTSD Scale (any version)</td>
<td>Total (also called “severity”) Could also report intensity</td>
</tr>
<tr>
<td>SCID</td>
<td>Structured Clinical Interview for DSM</td>
<td>No quantitative score. PTSD module.</td>
</tr>
<tr>
<td>PSS-I</td>
<td>PTSD Symptom Scale - Interview</td>
<td></td>
</tr>
<tr>
<td>STI or SAI</td>
<td>Standardized Trauma Interview or Standardized Assault Interview</td>
<td>STI is modified version of SAI</td>
</tr>
<tr>
<td>SI-PTSD</td>
<td>Structured Interview for PTSD</td>
<td></td>
</tr>
<tr>
<td>MINI</td>
<td>Mini-International Neuropsychiatric Interview</td>
<td></td>
</tr>
<tr>
<td>TOP-8</td>
<td>Treatment-Outcome Posttraumatic Stress Disorder Scale</td>
<td></td>
</tr>
<tr>
<td>CIDI</td>
<td>Composite International Diagnostic Interview</td>
<td></td>
</tr>
</tbody>
</table>

### Table B-4. Self-report PTSD measures in priority order for primary outcome (if no clinician-administered PTSD measure)

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCL</td>
<td>PTSD Checklist (any version)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Versions include: -C (civilian), -M (military), -S (specific), -S (for DSM-5)</td>
<td></td>
</tr>
<tr>
<td>PSS-SR</td>
<td>PTSD Symptom Scale - Self Report</td>
<td></td>
</tr>
<tr>
<td>PDS</td>
<td>Posttraumatic Diagnostic Scale</td>
<td></td>
</tr>
<tr>
<td>IES or IES-R</td>
<td>Impact of Event Scale (- Revised)</td>
<td>IES 15 items, IES-R 22</td>
</tr>
<tr>
<td>DTS</td>
<td>Davidson Trauma Scale</td>
<td></td>
</tr>
<tr>
<td>HTQ</td>
<td>Harvard Trauma Questionnaire</td>
<td></td>
</tr>
<tr>
<td>M-PTSD</td>
<td>Mississippi Scale for Combat-Related PTSD</td>
<td></td>
</tr>
<tr>
<td>MPSS</td>
<td>Modified PTSD Symptom Scale</td>
<td></td>
</tr>
<tr>
<td>SPRINT</td>
<td>Short Post-Traumatic Stress Disorder Rating Interview</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trauma Symptom Checklist - 40</td>
<td></td>
</tr>
<tr>
<td>TSI</td>
<td>Trauma Symptom Inventory</td>
<td></td>
</tr>
<tr>
<td>PC-PTSD</td>
<td>Primary Care PTSD Screen</td>
<td></td>
</tr>
<tr>
<td>SASRQ</td>
<td>Stanford Acute Stress Reaction Questionnaire</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minnesota Multiphasic Personality Inventory PTSD subscale</td>
<td></td>
</tr>
</tbody>
</table>
## Chapter 4. Other Outcome Measures

Table B-5. Other outcome measures

<table>
<thead>
<tr>
<th>Outcome Type</th>
<th>Abbreviation</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger</td>
<td>BDHI</td>
<td>Buss-Durkee Hostility Inventory</td>
</tr>
<tr>
<td>Anger</td>
<td>BSI-Hostility</td>
<td>Brief Symptom Inventory-Hostility</td>
</tr>
<tr>
<td>Anger</td>
<td>DAR7</td>
<td>Dimensions of Anger Reactions</td>
</tr>
<tr>
<td>Anger</td>
<td>HSCL (-90 Hostility)</td>
<td>Hopkins Symptom Checklist 90 (abstract as SCL-90)</td>
</tr>
<tr>
<td>Anger</td>
<td>SCL-90 Hostility</td>
<td>Symptom Checklist 90-Hostility</td>
</tr>
<tr>
<td>Anger</td>
<td>STAS</td>
<td>State-Trait Anger Scale</td>
</tr>
<tr>
<td>Anger</td>
<td>STAXI (-2)</td>
<td>State-Trait Anger Expression Inventory (-Version 2)</td>
</tr>
<tr>
<td>Anger</td>
<td>TSI-Anger/Irritability</td>
<td>Trauma Symptom Inventory-Anger/Irritability</td>
</tr>
<tr>
<td>Anxiety</td>
<td>BAI</td>
<td>Beck Anxiety Inventory</td>
</tr>
<tr>
<td>Anxiety</td>
<td>BSI-Anxiety</td>
<td>Brief Symptom Inventory-Anxiety</td>
</tr>
<tr>
<td>Anxiety</td>
<td>ECR (-R)</td>
<td>Experiences in Close Relationship (-Revised)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>GAD-7</td>
<td>Generalized Anxiety Disorder 7-Item</td>
</tr>
<tr>
<td>Anxiety</td>
<td>HAM-A</td>
<td>Hamilton Rating Scale for Anxiety</td>
</tr>
<tr>
<td>Anxiety</td>
<td>HSCL (-90 Anxiety)</td>
<td>Hopkins Symptom Checklist 90 (abstract as SCL-90)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>MASQ-AA</td>
<td>Mood and Anxiety Symptom Questionnaire-Anxious Arousal</td>
</tr>
<tr>
<td>Anxiety</td>
<td>PHQ-9</td>
<td>Patient Health Questionnaire-9 item</td>
</tr>
<tr>
<td>Anxiety</td>
<td>SCL-90-Anxiety</td>
<td>Symptom Checklist-Anxiety (SCL also known as Hopkins Symptom Checklist)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>STAI (-S; -T)</td>
<td>State-Trait Anxiety Inventory (-State; -Trait)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>TSI-AA</td>
<td>Trauma Symptom Inventory-Anxious Arousal</td>
</tr>
<tr>
<td>Depression</td>
<td>BADS</td>
<td>Behavioral Activation for Depression Scale</td>
</tr>
<tr>
<td>Depression</td>
<td>BDI (-II)</td>
<td>Beck Depression Inventory (-2nd version)</td>
</tr>
<tr>
<td>Depression</td>
<td>BSI-Depression</td>
<td>Brief Symptom Inventory-Depression</td>
</tr>
<tr>
<td>Depression</td>
<td>CES-D</td>
<td>Center for Epidemiologic Studies-Depression Scale</td>
</tr>
<tr>
<td>Depression</td>
<td>DASS 21</td>
<td>Depression Anxiety Stress Scale</td>
</tr>
<tr>
<td>Depression</td>
<td>HADS (-A; -D)</td>
<td>Hospital Anxiety and Depression Scale (-Anxiety; -Depression)</td>
</tr>
<tr>
<td>Depression</td>
<td>HAM-D</td>
<td>Hamilton Depression Rating Scale</td>
</tr>
<tr>
<td>Depression</td>
<td>HSCL (-90 Depression)</td>
<td>Hopkins Symptom Checklist 90 (abstract as SCL-90)</td>
</tr>
<tr>
<td>Depression</td>
<td>MADRS</td>
<td>Montgomery-Asberg Depression Rating Scale</td>
</tr>
<tr>
<td>Outcome Type</td>
<td>Abbreviation</td>
<td>Name</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------</td>
<td>-------</td>
</tr>
<tr>
<td>Depression</td>
<td>MASQ-AD</td>
<td>Mood and Anxiety Symptom Questionnaire-Anhedonic Depression</td>
</tr>
<tr>
<td>Depression</td>
<td>PANAS</td>
<td>Positive and Negative Affect Scale</td>
</tr>
<tr>
<td>Depression</td>
<td>PHQ-9</td>
<td>Patient Health Questionnaire-9 item</td>
</tr>
<tr>
<td>Depression</td>
<td>QIDS</td>
<td>Quick Inventory of Depressive Symptomatology</td>
</tr>
<tr>
<td>Depression</td>
<td>SCL-20</td>
<td>20-item Symptom Checklist Depression Scale</td>
</tr>
<tr>
<td>Depression</td>
<td>SCL-90-Depression</td>
<td>Symptom Checklist 90-Depression (SCL also known as Hopkins Symptom Checklist)</td>
</tr>
<tr>
<td>Functioning</td>
<td>ASEX</td>
<td>Arizona Sexual Experience Scale</td>
</tr>
<tr>
<td>Functioning</td>
<td>FACIT (Sp)</td>
<td>Functional Assessment of Chronic Illness Therapy (Spiritual well-being Scale)</td>
</tr>
<tr>
<td>Functioning</td>
<td>GAF</td>
<td>Global Assessment of Function</td>
</tr>
<tr>
<td>Functioning</td>
<td>GHQ28</td>
<td>General Health Questionnaire-28</td>
</tr>
<tr>
<td>Functioning</td>
<td>ODI</td>
<td>Oswestry Disability Index</td>
</tr>
<tr>
<td>Functioning</td>
<td>SAS</td>
<td>Social Adjustment Scale</td>
</tr>
<tr>
<td>Functioning</td>
<td>SDI</td>
<td>Social Disability Index</td>
</tr>
<tr>
<td>Functioning</td>
<td>SDS</td>
<td>Sheehan Disability Scale</td>
</tr>
<tr>
<td>Functioning</td>
<td>SF-12</td>
<td>12-Item Short Form Health Survey</td>
</tr>
<tr>
<td>Functioning</td>
<td>SF-36</td>
<td>36-Item Short Form Health Survey</td>
</tr>
<tr>
<td>Functioning</td>
<td>SF-36 PCS</td>
<td>Physical Component Summary</td>
</tr>
<tr>
<td>Functioning</td>
<td>SF-36 MCS</td>
<td>Mental Component Summary</td>
</tr>
<tr>
<td>Functioning</td>
<td>WAS</td>
<td>Work and Social Adjustment Scale</td>
</tr>
<tr>
<td>Other/mixed</td>
<td></td>
<td>Symptom Assessment-45</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>EUROHIS-QOL</td>
<td>European Health Interview Surveys-Quality of Life</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>SF-8 MCS</td>
<td>Short Form Health Survey-Mental Component Score</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>SF-8 PCS</td>
<td>Short Form Health Survey-Physical Component Score</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>Q-LES-Q (-SF)</td>
<td>Quality of Life Enjoyment and Satisfaction Questionnaire (Short Form)</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>QOLI</td>
<td>Quality of Life Inventory</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>WHOQOL (-BREF)</td>
<td>World Health Organization Quality of Life (abbreviated version)</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>WHO-5</td>
<td></td>
</tr>
<tr>
<td>Relationship</td>
<td>ECR-R</td>
<td>Experiences in Close Relationships-Revised</td>
</tr>
<tr>
<td>Sleep</td>
<td>ISI</td>
<td>Insomnia Severity Index</td>
</tr>
<tr>
<td>Outcome Type</td>
<td>Abbreviation</td>
<td>Name</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------</td>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td>Sleep</td>
<td>PSQI</td>
<td>Pittsburgh Sleep Quality Index</td>
</tr>
<tr>
<td>Substance Use</td>
<td>ACQ-Now</td>
<td>Alcohol Craving Questionnaire-Now</td>
</tr>
<tr>
<td>Substance Use</td>
<td>ADS</td>
<td>Alcohol Dependence Scale</td>
</tr>
<tr>
<td>Substance Use</td>
<td>ASI (-alcohol; -drug)</td>
<td>Addiction Severity Index (alcohol use; drug use)</td>
</tr>
<tr>
<td>Substance Use</td>
<td>AUDIT</td>
<td>Alcohol Use Disorders Identification Test</td>
</tr>
<tr>
<td>Substance Use</td>
<td>TLFB</td>
<td>Time Line Follow-Back</td>
</tr>
</tbody>
</table>
Chapter 5. Data Abstraction Instructions

1. General

“NR” for not reported; “NA” for not applicable

- If outcome was not assessed at a time point, enter “NA” for all cells corresponding to that time point
- If a secondary outcome was not assessed, enter “NA” for measure name and all comparisons for that outcome
- If a study did not define “PTSD Diagnostic Change” and/or “Clinically Meaningful Response,” keep both labels in cell and enter “NR”

Hard returns

- Use hard returns for comparison between multiple arms: A vs B, A vs C, B vs C
- Use hard returns for different analyses (e.g., ITT and completer)
- Use hard returns for different measures (e.g., BDI and HAM-D for depression)

Report up to 2 decimal places except for p-values

- If study provides a value with 0 or 1 decimal place, abstract as reported. Do not add additional 0 at the end
- If calculating, such as n/N, round to 2 decimal places
- Abstract p-values to as many decimals as reported

Keep all pre-filled categories except for race (e.g., Completion, Adherence, PTSD Diagnostic Change, Clinically Meaningful Response, SAE’s, etc.), and input “NR” or “NA” as appropriate

a. Calculations and Reporting Statistics

Calculate percentages from n/N, report to 2 decimal places

Calculate these pooled means for overall study characteristics if only reported by intervention arms

- PTSD severity at baseline (mean and SD)
- Duration of PTSD symptoms (mean and SD)
- Mean age (mean and SD)
- Number of trauma types experienced per patient (mean and SD)
- Number of traumatic events experienced per patient (mean and SD)

Score difference from baseline

- Within group: abstract or calculate (if not provided) difference between mean score at time point being entered and score at baseline. Abstract SD or other error estimate if provided in parentheses, indicate if not SD (e.g., 95% CI, SEM, etc.)
- Between group (and/or across groups): abstract mean difference in change from baseline and SD (or other error estimates) if reported in study. **DO NOT** calculate

Effect sizes

- **DO NOT** calculate effect size (e.g., OR, RR, standardized difference of means), CI, or p-values
• If multiple methods of score difference are reported, enter only 1 based on priority in order of:
  ▪ Adjusted difference in change from baseline (e.g., ANCOVA, other models); abstract for most adjusted model if more than 1 model reported
  ▪ Unadjusted difference in change from baseline (e.g., ANOVA, other unadjusted models)
  ▪ Difference between scores at time point (not adjusted for baseline differences)

• Abstract effect size name
  ▪ Common effect size names: eta-squared, partial eta-squared, Cohen’s d, Hedges’ g, omega-squared, odds ratio, relative risk, treatment effect (ANOVA), group x time interaction
  ▪ Note: Cohen’s d and Hedges’ g are standardized mean differences, which are effect sizes

• General format: “statistic name effect size (95% CI), p-value”
  ▪ Indicate type of effect size (e.g., Cohen’s d, OR)
  ▪ Abstract all elements, even if not significant
  ▪ For 95% CI, enter up to 2 decimal points and enter range using “to” (no dash or hyphen). Do not re-type “95% CI” inside parentheses. Indicate if other than 95% (e.g., 90% CI 0.45 to 0.70)
  ▪ Do not report test statistics (e.g., F- or t-values, degrees of freedom)

• Examples:
  RR 0.56 (0.50 to 0.62), p=0.02
  Eta-squared 0.56 (NR), p=0.02
  Cohen’s d 0.56 (NR), NR
  NR (NR), p<0.05 (e.g., when study specified α-level and reported comparison and significant)
  NR (NR), p=NS (e.g., when study did not specify α-level and reported comparison as not significant)
  NR (if study did not report effect size, 95% CI, or p-value)

b. Multiple Entries Within a Cell
If an outcome is measured multiple times within a category (e.g., at 1 and 3 months), abstract results for both time points separated by carriage return with extra space in between. Group comparisons by measure, then by time points.
### Table B-6. Example of multiple entries within a cell (<6 months)

<table>
<thead>
<tr>
<th>Time Point of Assessment</th>
<th>N Completed Outcome Measurement</th>
<th>Mean Measure Score (SD)</th>
<th>Score Difference from Baseline</th>
<th>Within Group Effect Size and Statistical Significance</th>
<th>% Achieved PTSD Diagnostic Change</th>
<th>% Achieved Clinically Meaningful Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 month</td>
<td>100</td>
<td>46.8 (12.2)</td>
<td>-23.4 (NR)</td>
<td>Hedges’ g 1.7 (NR), p=0.02</td>
<td>52.00% (13/25)</td>
<td>80.00% (20/25)</td>
</tr>
<tr>
<td>3 months</td>
<td>96</td>
<td>42.3 (NR)</td>
<td>-27.9 (NR)</td>
<td>NR (NR), p=0.015</td>
<td>NR</td>
<td>88.00% (22/25)</td>
</tr>
</tbody>
</table>

If an outcome was measured using multiple measures (e.g., BDI and HAM-D for depression), abstract all scales separated by carriage return with extra space in between. Group comparisons together by each measure.

### Table B-7. Example of multiple measures for an outcome

<table>
<thead>
<tr>
<th>Depression Outcome Measures</th>
<th>Arms Compared</th>
<th>End of Treatment [Effect size (95% CI), p-value]</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDI</td>
<td>A vs B</td>
<td>Cohen’s d 0.12 (NR), p&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>A vs C</td>
<td>Cohen’s d 0.27 (NR), p&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>B vs C</td>
<td>Cohen’s d 0.15 (NR), p&gt;0.05</td>
</tr>
<tr>
<td>HAM-D</td>
<td>A vs B</td>
<td>Cohen’s d 0.08 (NR), p&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>A vs C</td>
<td>Cohen’s d 0.23 (NR), p&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>B vs C</td>
<td>Cohen’s d 0.16 (NR), p&gt;0.05</td>
</tr>
</tbody>
</table>

### c. Pharmacologic/Nonpharmacologic Table Assignment

Pharmacologic table will include any study that includes an intervention arm with a pharmacologic component.

Nonpharmacologic table will include studies with psychotherapy, complementary and/or integrative approach, and non-pharmacologic biological interventions (see Chapter 2, Intervention Categories, adapted from the VA/DoD CPG).

### 2. Table Fields: Study & Intervention Tab

#### a. Study Characteristics

**Country/countries**

- List all countries, separated by commas.
Site Type
- Likely will be specified in study design, based on where study was conducted
- For U.S. settings, use “VA/DoD” for a military or veteran clinic
- For non-U.S. settings, use “MIL” for a military or veteran clinic or “non-MIL” for a community setting

Clinical Setting Options
- Acute inpatient: mainly crisis management
- Residential inpatient: participant voluntarily checks into treatment center
- Intensive outpatient: multiple sessions per week, but patient not living in a treatment center; studies will typically state if intervention is “intensive”
- Outpatient clinic: up to 3 normal clinical appointments per week
- Primary care clinic
- Telehealth: includes interaction with therapist (e.g., via webcam)
- Other: give brief description in cell (e.g., mobile application, expressive writing, internet)
- Mixed: list out included categories (e.g., primary care clinic and mobile application)

Study Design
- Common designs: crossover, parallel
- If study is a crossover study and reports results by each period, abstract only the 1st period results (to minimize order and carry-over effects)
- If waitlist control group receives intervention after end of specified treatment period, do not abstract subsequent treatment’s data

Subscale or Symptom Cluster Data Reported?
- For PTSD measures only (primary or secondary), does not consider other outcomes
- Enter “Y” if study reported subscale or symptom cluster data for PTSD measures (e.g., on CAPS, study reported Criterion B – Re-experiencing symptoms; Criterion C – Avoidance symptoms; Criterion D – Negative alterations in cognitions and mood; Criterion E – Alterations in arousal and reactivity)
- Do not abstract which PTSD measure (e.g., name or primary PTSD) and subscale name

Subgroup Analyses Reported?
- For PTSD measures only (primary or secondary)
- Indicate “Y” if publication includes subgroup analysis (e.g., analysis by gender, duration of PTSD symptoms); abstractors do not need to seek potential secondary publications that include subgroup analysis

All Providers Have Graduate Degree?
- Enter “Y” if study specifies that all psychotherapy/complementary and integrative approach providers have graduate degree
- Graduate degree includes master degree and above
Doctoral students do not qualify as having graduate degree unless study specified that they have already obtained master degree

Enter “NA” for pharmacologic studies

**Intervention Includes Group Therapy?**
- Enter “Y” if any treatment arm includes group therapy
- Enter “N” for pharmacologic study comparing drug vs. placebo
- Enter “N” if study offers optional group therapy, but interventions being studied did not include a group therapy component

**Allowed PTSD Psychotherapy Co-Intervention?**
- Enter “Y” only if study specifically states that participants were allowed to continue other psychotherapy for PTSD
- If study only states that participants were allowed to continue current psychotherapy without specifying indication, enter “NR”
- If study specifically allows/prohibits a particularly method of psychotherapy for PTSD but did not specify for other forms of psychotherapy, enter “NR” and indicate in parentheses type of psychotherapy allowed/prohibited

**Allowed Other Psychotherapy Co-Intervention?**
- If study only states that participants were allowed to continue current psychotherapy without specifying indication, enter “Y”
- If study specifically allows/prohibits a particularly method of psychotherapy but did not specify for other forms of psychotherapy, enter “NR” and indicate in parentheses type of psychotherapy allowed/prohibited

**Allowed Psychotropic Medication Co-Intervention?**
- Enter “Y” if study states patients allowed to continue current psychotropic medication

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**b. PTSD Definition**

**Diagnostic Instruments**
- List all instruments used to diagnose PTSD and specify version of criteria
- If multiple instruments used for diagnosis, enter all and separate with carriage return
  - Indicate if participants must satisfy all diagnostic instruments’ criteria or any (“and” vs “or”)
- Indicate version of criteria (e.g., CAPS or CAPS-5; DSM-IV or DSM-V)
  - Indicate both instrument and diagnostic version (e.g., CAPS for DSM-IV)
  - Examples: CAPS used to diagnose PTSD according to DSM-IV criteria, abstract “CAPS for DSM-IV”
    - CAPS-5 is based on DSM-5
    - PCL-M (military), PCL-C (civilian), and PCL-S (specific) were based on DSM-IV; PCL-5 is for DSM-5
• If study only reports “diagnosis of PTSD” as an inclusion criterion, abstract “NR”
• If study reports “diagnosis of PTSD according to DSM-IV” as an inclusion criterion, abstract “DSM-IV”

Threshold
• Abstract as specified by study
• Threshold for total score, not the “1/2 Rule” for CAPS
• Do not assume threshold is the typical cut-off (e.g., do not enter 33 for PCL-5 unless specified)
• If multiple diagnostic instruments were used, enter each measure name and threshold. (e.g., CAPS: >55 \ PCL-5: NR)
• Enter “NA” if measure doesn’t have cut-off (e.g., The MINI International Neuropsychiatric Interview, SCID)
• Enter “NR” if threshold not reported

c. Population Characteristics

Overall study population, not individual arm (calculate if reported by arm)
N randomized: preferentially use numbers as reported in figure
N randomized ≠ N enrolled (participants may drop out before being randomized to an intervention arm)
Study may exclude participants in the ITT population if they met exclusion criteria during the trial (e.g., trauma event during therapy, change in medication). In this case, use N for ITT as indicated by study for baseline and subsequent assessments

% Meeting Criteria for PTSD at Baseline
• Abstract “100%” if diagnosis of PTSD is an inclusion criterion
• If patients with subthreshold PTSD were included, enter only % meeting full PTSD diagnosis
• If study reports results for 2 populations separately, then only abstract results for population with full PTSD
• If not reported for overall population, calculate from individual arms

PTSD severity at baseline: abstract for entire study population
• Abstract instrument used to measure PTSD severity, whether or not it is the same instrument used to diagnose PTSD (e.g., CAPS)
• If not reported for overall population, calculate from individual arms

Duration of PTSD symptoms: abstract mean (SD) in years, indicate if not mean/SD/years
• If study reports years since index trauma, enter “NR” but mean years since trauma in parentheses: NR (7.9 [SD 1.3] years since index trauma)
• If not reported for overall population, calculate from individual arms

% Active Duty Military: 100% if conducted at a DoD base (or equivalent non-U.S. site), or as indicated by study
• If possible, calculate from n/N for overall study population

% Veteran: 100% if conducted at a VA clinic (or equivalent non-U.S. site), or as indicated by study
• If possible, calculate from n/N for overall study population
% Community: assume 100% if conducted outside of VA/DoD or equivalent veteran/military site (e.g., community clinic)
  • The three categories should sum to 100% (for this purpose the variables are considered mutually exclusive)
  • If possible, calculate from n/N for overall study population
  • If a study is conducted in non-VA/DoD setting but does not indicate that all participants were civilians, enter “NR” for “% Active Duty Military” and “% Veteran”

Mean Age: abstract mean age and SD for overall group
  • If not reported for overall population, calculate from individual arms
  • Indicate if not mean or SD
  Examples: 54.6 (SEM 2.5), Median 59.4 (IQR 45 to 65)

Gender and Sexual Orientation:
  • If population by gender was not reported, enter NR
  • If possible, calculate from n/N for overall study population
  • Unless otherwise stated, if a study reports %M, assume %F = 100% - %M
  • Abstract sexual orientation if reported, do not enter “NR” if not provided

Race: will be pre-populated with census categories (i.e., White, Black, Asian, American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander)
  • If calculating for overall study population, such as from n/N, round to 2 decimal places
  • All categories should sum to 100%
    ▪ If study provides some categories but all categories do not sum to 100%, consider remainder population as “Other”
  • Delete pre-filled categories if not reported (don’t enter “NR”); if reported as 0 then enter as such
  • Match reported categories with census names when possible (e.g. African American, enter as Black).
    ▪ If a category cannot be matched to a Census category, classify it as “Other”
    ▪ Do not combine categories (e.g., Asian/Native Hawaiian/Pacific Islander)
    ▪ Categorize “Hispanics” as “Other” race if race and ethnicity are not reported independently, and also report it under “Ethnicity” column

  • Census category definitions:
    ▪ White: a person from Europe, the Middle East, or North Africa
    ▪ Black or African American: a person having origins in any of the Black racial groups of Africa
    ▪ American Indian or Alaska Native: a person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment
- Asian: a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent (e.g., Cambodia, India, Pakistan)

- Native Hawaiian or Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands

Table B-8. Example of data abstraction of race

<table>
<thead>
<tr>
<th>Race</th>
<th>Ethnicity (% Hispanic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White: 55.00%</td>
<td>0%</td>
</tr>
<tr>
<td>Black: 40.00%</td>
<td></td>
</tr>
<tr>
<td>Asian: 3.00%</td>
<td></td>
</tr>
<tr>
<td>Other: 2.00%</td>
<td></td>
</tr>
</tbody>
</table>

Ethnicity
- Defined as a person of Hispanic origin, includes Latino
- If possible, calculate from n/N for overall study population

% Treatment-naïve: abstract % without any prior PTSD treatment
- If unclear (e.g., study reports number of patients received psychotropic medication without specifying it for PTSD), enter “NR”
- If possible, calculate from n/N for overall study population

% with Depression
- If possible, calculate from n/N for overall study population
- Does NOT require diagnosis of depression, but preferentially abstract % with major depressive disorder (MDD) if study also reports % dysthymia
- Do not need to indicate MDD or dysthymia
  - Preferentially enter % with current diagnosis (as opposed to lifetime)
  - Only indicate if % reported is for lifetime symptoms

% with Substance Use Diagnoses
- Requires diagnosis of SUD, which includes alcohol use disorder (AUD)
- If possible, calculate from n/N for overall study population
- If AUD and SUD reported separately or only 1 was reported, abstract all data and indicate which type
  - If reported by individual substance, enter as reported (still requires diagnosis)
- If enrollment criteria exclude participants with AUD but did not report for other substances, abstract “AUD: 0% AUD / SUD: NR”

Patients with Suicidality Excluded?
- Enter “Y” if study mentioned excluded patient with any intensity of suicidal ideation (e.g., study excluded patients with severe depression with suicidal ideation → Y)
- If study did not specify patients with suicidal ideation were excluded → N
Trauma Type

- Classify preferentially by index trauma, not participant’s current status (e.g., traumatic event was childhood sexual assault but participant is currently an active duty member, trauma type is “child sexual abuse” and not “MST”)
- Abstract included trauma types for mixed (e.g., Mixed: child physical abuse, child sexual abuse)
- Abstract brief description for “Other”
- Notes on some trauma types:
  - Child other abuse includes neglect, psychological maltreatment
  - Intimate partner violence includes domestic violence
  - Accidents include motor vehicle accidents, transportation-related accidents (e.g., cyclist or pedestrian hit by a vehicle), and accidents due to construction
  - Community/school violence includes bullying, physical abuse/assault, gang-related violence, interracial violence, police and citizen altercations, mass shootings, etc.
  - Natural or manmade disasters include tornadoes, hurricanes, floods, wildfires, mudslide, drought, chemical spills, etc.

Number of Trauma Types

- Average number of types of trauma experienced by patient for entire study population (for example, patients who experienced child abuse and intimate partner violence would have 2 types of trauma)
  - If not reported for overall population, calculate from individual arms

Number of Traumatic Events

- Average number of traumatic events per patient (e.g., patients may have had repeated traumas such as combat)
  - If not reported for overall population, calculate from individual arms

d. Intervention

Intervention Class

- Enter classification according to “Intervention Classification” table
- Unless a study requires a specific psychotherapy (e.g., Hien 2015 compared Seeking Safety + Sertraline vs. Seeking Safety), typical control arm (e.g., treatment as usual, medication management, supportive counseling, minimal attention, attention control, placebo, waitlist, etc.) will be classified as “Control”
- If a study is investigating combined psychotherapy with pharmacotherapy, enter “Mixed: psychotherapy + pharmacologic” for intervention arm with 2 active components, and “Mixed: psychotherapy + control” for intervention arm with psychotherapy and placebo
• If a study offers same intervention for all treatment arms (e.g., comparing drug vs. placebo but all participants received psychotherapy), classify by intervention(s) that differ across treatment arms (pharmacologic in this scenario, not mixed)
  ▪ Describe any treatment provided to all groups in Treatment Description column for all interventions (not allowed co-intervention)

Treatment Name
• Short name of intervention (e.g., CBT)
• Refer to Chapter 2. Intervention Categories with Examples for current list of acceptable abbreviations

Treatment Description:
• Brief description, specific components included/excluded (e.g., DTMS after script-driven imagery of a positive experience immediately followed by script-driven imagery of a neutral event)
• Abstract details of titration schedule if given (e.g., 25 mg for 1 week, then 50 mg for 1 week, then titrated to 100 to 150 mg for 6 weeks)
• Do not include information abstracted in other cells (e.g., dose, frequency, duration)
• Enter drug class for pharmacotherapy if possible (e.g., SSRI for sertraline)

Dose and/or Session Length
• For example, 60-minute sessions; 4 mg; 1-Hz for 20 minutes
• If an intervention drug is started at a dose that can be titrated up to a maximum dose, enter as “start at xx mg up to xx mg”
  ▪ Abstract additional details of titration schedule under Treatment Description
  ▪ Otherwise abstract drug dose range
• Report as study reported for active placebo (e.g., dose of low-dose MDMA, time spent on expressive writing)
• Abstract for active therapy session (e.g., group therapy session or time with therapist), does not include homework time
• If intervention combines pharmacologic and nonpharmacologic treatments, abstract details for both (e.g., Session length: 60 minutes \ Dose: 25 mg)
• Enter “NA” for placebo

Frequency
• Indicate whether daily or weekly, no abbreviations (e.g. “twice daily” not “BID”)
• If intervention was administered only once, enter “once”

Definition of Treatment Completion and/or Adherence: as defined by study (e.g., participants must attend 80% of weekly sessions)
• This is not the same definition as those who qualify for completer analysis. Study must clearly state “definition of treatment completion”
• Study may define completer as those who completed x number of sessions
• Pharmacotherapy may include riboflavin as a tracer of medication compliance
• Enter “NR” for either category if not reported; both definitions may be defined for either psychotherapy or pharmacotherapy

% Completed and/or Adhered to Treatment
• % Completed is not % with end-of-treatment outcome measure, only those that meet pre-specified treatment completion definition
• Keep both categories in cell, enter “NR” if not reported (rather than “NA”)

Sessions Completed/Dose at Study End Point, Mean (SD): likely used when study does not report % adhered to treatment, but gives an average number of sessions attended by all participants
• Sessions completed: abstract (mean number of sessions completed)/(total planned sessions)
• Dose: abstract average final dose at end of study
  ▪ For placebo, do not abstract drug equivalence dose
• Keep both pre-filled categories, enter “NR” or “NA” as appropriate

3. Table Fields: PTSD Outcomes Tab

Primary PTSD Outcome Measure
• Refer to Chapter 3, PTSD Measures for full list of PTSD outcome measures and priority

  Prioritization of primary PTSD outcome: note which version (in order of priority)
  ▪ CAPS: total (sometimes called severity)
  ▪ Structured Clinical Interview for DSM (SCID)
  ▪ PTSD Symptom Scale – Interview (PSS-I)
  ▪ Standardized Assault Interview (SAI, sometimes called STI)
  ▪ Structured Interview for PTSD (SI-PTSD)
  ▪ Mini-International Neuropsychiatric Interview (MINI)
  ▪ Other structured clinical interview
  ▪ PTSD Checklist (PCL)
  ▪ PTSD Symptom Scale – Self-Report (PSS-SR)
  ▪ Posttraumatic Diagnostic Scale (PDS)
  ▪ Impact of Event Scale (IES)
  ▪ Other self-reported measure of PTSD

Definition of PTSD Diagnostic Change
• If study stated a threshold that defines PTSD diagnosis (e.g., CAPS score >40) but did not otherwise define “PTSD Diagnostic Change”, use score threshold as definition (e.g., in this case report CAPS score ≤40)
• If study only lists diagnosis of PTSD as an inclusion criterion without providing threshold, use “NR” but still abstract % and n/N of participants that achieved PTSD diagnostic change
• If a study reports proportion of participants in “remission” without defining remission as change in diagnosis, do not abstract as “PTSD Diagnostic Change”; abstract as “Clinically Meaningful Response” instead
• If a study reports proportion of participants with less than a certain score (e.g., CAPS score <50) but did not state same cutoff score for PTSD diagnosis, **do not** assume this is equivalent to diagnostic change (it is possible to have CAPS score >40 but not qualify as having a diagnosis of PTSD if not all criteria are satisfied); abstract as “**Clinically Meaningful Response**” instead

**Indicator of Clinically Meaningful Response:**

- Abstract outcomes for all if more than 1 reported
- Abstract definition(s) may include:
  - A PTSD measure (e.g., ≥10-point reduction in CAPS score)
  - Clinical Global Impression – Improvement Scale (CGI-I) (e.g., CGI-I rated as very much [score of 1] or much [score of 2] improved)
  - Reliable Change Index (RCI) (e.g., ≥2 standard deviation change from baseline SI-PTSD score), or
  - Combination of a PTSD measure and non-PTSD measure (e.g., ≥10-point reduction on CAPS and BDI score <10)
- Abstract Clinical Global Impression – Improvement scale (CGI-I) as dichotomous outcome, **do not** abstract as continuous outcome (mean score)
- **Do not** abstract Clinical Global Impression – Severity scale (CGI-S)
- Use carriage return if multiple indicators were analyzed (do not need to re-type criteria, but separate by carriage return with blank line)

**Methods for Handling Missing Data**

- Abstract how study reported handling missing data, even if method was not specified by outcome. If method differs for primary PTSD outcome from other outcomes, abstract for primary PTSD outcome
  - There should be a method for handling missing data for completer analysis too (participants who met completion criteria may have missing assessment scores)
- Possible methods: list-wise or pairwise deletion, substitution, excluded, last observation carried forward, models
- If study conducted both ITT and completer analysis, report method for both (e.g., ITT: multiple imputation/Completer: excluded)

**Analysis Type**

- Report if analyzed by ITT and/or Completer (abstract for both)
- If study reported both types of analysis, group results by analysis type and indicate
Table B-9. Example of methods for handling missing data

<table>
<thead>
<tr>
<th>Analysis Type</th>
<th>Score Difference from Baseline (SD)</th>
<th>Score Difference Effect Size (95% CI), p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITT</td>
<td>ITT: -10.2 (NR)</td>
<td>ITT: (for 3 arms)</td>
</tr>
<tr>
<td>Completer</td>
<td>Completer: -13.1 (NR)</td>
<td>Etasquared 0.7 (0.1 to 1.3), p&gt;0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Etasquared 4.5 (4.2 to 4.8), p&lt;0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Etasquared 3.6 (3.2 to 3.9), p&lt;0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Completer: Etasquared 0.9 (0.4 to 1.4), p&lt;0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Etasquared 4.8 (4.6 to 5.4) p&lt;0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Etasquared 4.2 (3.9 to 4.7), p&lt;0.05</td>
</tr>
</tbody>
</table>

Statistical Analysis: type of statistical analysis used to analyze data
- Abstract as given in study
- If study reported multiple methods, indicate method for change in mean scores, diagnostic change, and clinically meaningful response

N completed Outcome Measurement
- Report number of participants who completed assessment and contributed outcome data at a time point using N for ITT and/or completer

Mean Measure Score (SD)
- Abstract both mean and SD if possible (if SD not reported, abstract “(NR)"
- If mean is not stated but study reported difference from baseline, calculate mean (SD would be “NR” in this case)

Score Difference from Baseline
- Abstract or calculate (if not provided) difference between mean score at time point being entered and score at baseline. Abstract SD or other error estimate (e.g., 95% CI, SEM, etc.) if provided in parentheses, indicate if not SD

Within Group Effect Size
- See Section 1a on general instruction for abstracting effect sizes
- If actual P-value given, report raw number, do not categorize into p<0.05, p<0.01

% Achieved PTSD Diagnostic Change: according to pre-defined criteria or study indicates as “loss of PTSD diagnosis” (if study did not define)
- Abstract as “% (n/N)"
- If study did not report n/N, report “NR”

% Achieved Clinically Meaningful Response: abstract as defined by study, include global and/or reliable change index (e.g., Clinician Global Impression)
- Abstract as “% (n/N)"

Variables Adjusted for in Primary PTSD Outcome Between-Group Statistical Analysis
- Abstract most comprehensive list of variables adjusted for (e.g., if adjusting for 1, 2, then 3 variables, list all 3 variables)
- Abstract results with most adjustments

Across Group and Pairwise Comparisons
- Indicate time points of assessment and separate using carriage return if an outcome is assessed multiple times within a time point category. If outcome was only assessed once in the category, do not abstract time point again
- If an outcome is assessed multiple times within a time point category, group by time point then by outcome category (e.g., PTSD diagnostic change, clinically meaningful response)
- For “Score Difference,” enter only if reported by the study.
- If study did not compare “PTSD diagnostic change” and/or “Clinically meaningful response,” in across-group or pairwise comparison, keep both categories in cell and abstract “NR” for each category
  - Only input “NA” for cell when outcomes were not assessed at a time point
  - See second example below (Table B-11)

**Table B-10. Example 1 (A vs. B, Time Point of Assessment <6 Months)**

<table>
<thead>
<tr>
<th>Score Difference</th>
<th>Score Difference Effect Size [Effect Size (95% CI), p-value]</th>
<th>PTSD Diagnostic Change and Clinically Meaningful Response [Effect Size (95% CI), p-value]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 month: NR</td>
<td>1 month: Cohen’s d 0.95 (0.91 to 0.97), p=0.021</td>
<td>1 month: PTSD diagnostic change: NR</td>
</tr>
<tr>
<td>3 months: -10.81</td>
<td>3 months: Cohen’s d 1.12 (0.99 to 1.25), p=0.030</td>
<td>Clinically meaningful response: RR NR (NR), p=0.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 months: PTSD diagnostic change: RR 0.49 (NR), p=0.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clinically meaningful response: RR 0.77 (NR), p=0.03</td>
</tr>
</tbody>
</table>
### Table B-11. Example 2 (A vs. B, Time Point of Assessment <6 Months)

<table>
<thead>
<tr>
<th>PTSD Diagnostic Change and Clinically Meaningful Response [Effect Size (95% CI), p-value]</th>
<th>PTSD Diagnostic Change and Clinically Meaningful Response [Effect Size (95% CI), p-value]</th>
<th>PTSD Diagnostic Change and Clinically Meaningful Response [Effect Size (95% CI), p-value]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 month: PTSD diagnostic change: NR</td>
<td>PTSD diagnostic change: NR</td>
<td>NA</td>
</tr>
<tr>
<td>Clinically meaningful response: RR NR (NR), p=0.02</td>
<td>Clinically meaningful response: RR NR (NR), p=0.02</td>
<td></td>
</tr>
<tr>
<td>3 months: PTSD diagnostic change: RR 0.49 (NR), p=0.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinically meaningful response: RR 0.77 (NR), p=0.033</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Scenario:** outcomes assessed multiple times (1 and 3 months) within a time point category (<6 months)

**Scenario:** outcomes assessed once within a time point category. Do not repeat time point because this should match the time point abstracted in Primary PTSD Outcome by intervention arm

**Scenario:** no outcome assessed during this time point

### 4. Table Fields: Other Outcomes and Harms tab

Refer to Chapter 4 – Other Outcome Measures for common outcomes

- Note: the list is not comprehensive
- Abstract other outcome measures not listed if outcome category is included (e.g., anxiety)
- If unsure whether an outcome measure should be abstracted, ask group

Use carriage return to report each pairwise comparison for “Arms Compared” and “Effect Size”

Use carriage return to separate multiple time points within a category (e.g., 1 and 3 months for “<6 Months”) and if multiple instruments were used to measure an outcome (e.g., HAM-D and BDI for Depression)

- Group comparisons by measure, then analysis type, then time point
- If an outcome was assessed using multiple instruments, retype comparisons in “Arms Compared” (may differ across instruments)
<table>
<thead>
<tr>
<th>Depression Outcome Measure(s)</th>
<th>Arms Compared</th>
<th>&lt;6 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(Effect size (95% CI), p-value)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 month:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A vs B: Hedges’ g 0.12 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A vs C: Hedges’ g 0.27 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B vs C: Hedges’ g 0.15 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td>BDI</td>
<td>1 month:</td>
<td>1 month:</td>
</tr>
<tr>
<td></td>
<td>A vs B:</td>
<td>Hedges’ g 0.12 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>A vs C:</td>
<td>Hedges’ g 0.27 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>B vs C:</td>
<td>Hedges’ g 0.15 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>3 months:</td>
<td>3 months:</td>
</tr>
<tr>
<td></td>
<td>A vs B:</td>
<td>Hedges’ g 0.08 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>A vs C:</td>
<td>Hedges’ g 0.23 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>B vs C:</td>
<td>Hedges’ g 0.16 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td>HAM-D</td>
<td>1 month:</td>
<td>1 month:</td>
</tr>
<tr>
<td></td>
<td>A vs B:</td>
<td>Hedges’ g 0.12 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>A vs C:</td>
<td>Hedges’ g 0.27 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>B vs C:</td>
<td>Hedges’ g 0.15 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>3 months:</td>
<td>3 months:</td>
</tr>
<tr>
<td></td>
<td>A vs B:</td>
<td>Hedges’ g 0.08 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>A vs C:</td>
<td>Hedges’ g 0.23 (NR), p &gt; 0.05</td>
</tr>
<tr>
<td></td>
<td>B vs C:</td>
<td>Hedges’ g 0.16 (NR), p &gt; 0.05</td>
</tr>
</tbody>
</table>
Table B-13. Example of other outcomes data formatting: do this

<table>
<thead>
<tr>
<th>Depression Outcome Measure(s)</th>
<th>Arms Compared</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDI</td>
<td>A vs B</td>
</tr>
<tr>
<td></td>
<td>A vs C</td>
</tr>
<tr>
<td>HAM-D</td>
<td>A vs D</td>
</tr>
<tr>
<td></td>
<td>B vs C</td>
</tr>
<tr>
<td></td>
<td>B vs D</td>
</tr>
<tr>
<td></td>
<td>C vs D</td>
</tr>
<tr>
<td></td>
<td>A vs B</td>
</tr>
<tr>
<td></td>
<td>A vs C</td>
</tr>
<tr>
<td></td>
<td>A vs D</td>
</tr>
<tr>
<td></td>
<td>B vs C</td>
</tr>
<tr>
<td></td>
<td>B vs D</td>
</tr>
<tr>
<td></td>
<td>C vs D</td>
</tr>
</tbody>
</table>

Table B-14. Example of other outcomes data formatting: do not do this

<table>
<thead>
<tr>
<th>Depression Outcome Measure(s)</th>
<th>Arms Compared</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDI</td>
<td>A vs B</td>
</tr>
<tr>
<td></td>
<td>A vs C</td>
</tr>
<tr>
<td></td>
<td>A vs D</td>
</tr>
<tr>
<td></td>
<td>B vs C</td>
</tr>
<tr>
<td></td>
<td>B vs D</td>
</tr>
<tr>
<td></td>
<td>C vs D</td>
</tr>
<tr>
<td></td>
<td>A vs B</td>
</tr>
<tr>
<td></td>
<td>A vs C</td>
</tr>
<tr>
<td></td>
<td>A vs D</td>
</tr>
<tr>
<td></td>
<td>B vs C</td>
</tr>
<tr>
<td></td>
<td>B vs D</td>
</tr>
<tr>
<td></td>
<td>C vs D</td>
</tr>
</tbody>
</table>
Harms

- Abstract as $\% \left( \frac{n}{N} \right)$ [e.g., 25.00% (150/600)]
- Report to 2 decimal places
- If study did not report any harms outcome, keep categories and input “NR” after each category
- If a study did not report harms by intervention arm, abstract as reported and indicate that data is for entire study population, then copy-and-paste data into other intervention arm

Table B-15. Example of harms data abstraction

<table>
<thead>
<tr>
<th>Intervention A</th>
<th>Intervention B</th>
<th>Intervention C</th>
<th>Intervention D</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire study population, not by intervention arm</td>
<td>For entire study population, not by intervention arm</td>
<td>For entire study population, not by intervention arm</td>
<td>NA</td>
</tr>
<tr>
<td>SAE: 4% (1/25)</td>
<td>SAE: 4% (1/25)</td>
<td>SAE: 4% (1/25)</td>
<td></td>
</tr>
<tr>
<td>Attempted suicide: 0% (0/25)</td>
<td>Attempted suicide: 0% (0/25)</td>
<td>Attempted suicide: 0% (0/25)</td>
<td></td>
</tr>
<tr>
<td>Completed suicide: 0% (0/25)</td>
<td>Completed suicide: 0% (0/25)</td>
<td>Completed suicide: 0% (0/25)</td>
<td></td>
</tr>
</tbody>
</table>

- Adverse event: any untoward medical occurrence associated with the use of a drug in humans, whether or not considered drug related (FDA)
- Serious adverse events
  - Serious adverse event: in the view of either the investigator or sponsor, it results in any of the following outcomes (FDA):
    - death
    - a life-threatening adverse event
    - inpatient hospitalization or prolongation of existing hospitalization
    - a persistent or significant incapacity or substantial disruption of the ability to conduct normal life functions
    - a congenital anomaly/birth defect
    - Important medical events that may not result in death, be life-threatening, or require hospitalization may be considered serious when, based upon appropriate medical judgment, they may jeopardize the patient or subject and may require medical or surgical intervention to prevent one of the outcomes listed in this definition (e.g., allergic bronchospasm requiring intensive

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treatment in an emergency room or at home, blood dyscrasias or convulsions, or development of drug dependency or drug abuse)

- Withdrawals due to adverse events
  - Subjects who discontinued treatment because of an adverse event

**Study Comments**

- Note if participants randomized to waitlist group received treatment (e.g., name of treatment, duration of waiting period)
- Note if study states that additional, unpublished data is available and where to find such data
- Note any other unique aspects of study (e.g., provides information on treatment fidelity for psychotherapy)
- Note if related studies are available (e.g., study is a pilot study, note citation of larger RCT)
# Chapter 6. Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC</td>
<td>Attention Control</td>
</tr>
<tr>
<td>ACQ-Now</td>
<td>Alcohol Craving Questionnaire-Now</td>
</tr>
<tr>
<td>ACT</td>
<td>Acceptance and Commitment Therapy</td>
</tr>
<tr>
<td>ADS</td>
<td>Alcohol Dependence Scale</td>
</tr>
<tr>
<td>ANCOVA</td>
<td>Analysis of covariance</td>
</tr>
<tr>
<td>ANOVA</td>
<td>Analysis of variance</td>
</tr>
<tr>
<td>ASEX</td>
<td>Arizona Sexual Experience Scale</td>
</tr>
<tr>
<td>AUD</td>
<td>Alcohol Use Disorder</td>
</tr>
<tr>
<td>AUDIT</td>
<td>Alcohol Use Disorders Identification Test</td>
</tr>
<tr>
<td>BADS</td>
<td>Behavioral Activation for Depression Scale</td>
</tr>
<tr>
<td>BAI</td>
<td>Beck Anxiety Inventory</td>
</tr>
<tr>
<td>BDI (-II)</td>
<td>Beck Depression Inventory (-2nd version)</td>
</tr>
<tr>
<td>BEP</td>
<td>Brief Eclectic Psychotherapy</td>
</tr>
<tr>
<td>BSI</td>
<td>Brief Symptom Inventory</td>
</tr>
<tr>
<td>CAPS</td>
<td>Clinician-Administered PTSD Scale</td>
</tr>
<tr>
<td>CBT</td>
<td>Cognitive Behavioral Therapy</td>
</tr>
<tr>
<td>CBT for Insomnia</td>
<td>Cognitive Behavioral Therapy for Insomnia</td>
</tr>
<tr>
<td>CBT for Sleep</td>
<td>Cognitive Behavioral Therapy for Sleep</td>
</tr>
<tr>
<td>CES-D</td>
<td>Center for Epidemiologic Studies-Depression Scale</td>
</tr>
<tr>
<td>CGI (-C; -I; -S)</td>
<td>Clinical Global Impression (-Change; -Improvement; -Severity)</td>
</tr>
<tr>
<td>CI</td>
<td>Confidence Interval</td>
</tr>
<tr>
<td>CIDI</td>
<td>Composite International Diagnostic Interview</td>
</tr>
<tr>
<td>CPT</td>
<td>Cognitive Processing Therapy</td>
</tr>
<tr>
<td>CR</td>
<td>Cognitive Restructuring</td>
</tr>
<tr>
<td>CRF-1</td>
<td>Corticotropin-releasing hormone (or factor) -1</td>
</tr>
<tr>
<td>DBT</td>
<td>Dialectic Behavior Therapy</td>
</tr>
<tr>
<td>DTMS</td>
<td>Deep Transcranial Magnetic Stimulation</td>
</tr>
<tr>
<td>DTS</td>
<td>Davidson Trauma Scale</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Term</td>
</tr>
<tr>
<td>--------------</td>
<td>------</td>
</tr>
<tr>
<td>ECR (-R)</td>
<td>Experiences in Close Relationship (-Revised)</td>
</tr>
<tr>
<td>ECT</td>
<td>Electroconvulsive Therapy</td>
</tr>
<tr>
<td>EMDR</td>
<td>Eye Movement Desensitization and Reprocessing</td>
</tr>
<tr>
<td>FACIT (-Sp)</td>
<td>Functional Assessment of Chronic Illness Therapy (-Spiritual Well-being Scale)</td>
</tr>
<tr>
<td>GAD-7</td>
<td>Generalized Anxiety Disorder 7-Item</td>
</tr>
<tr>
<td>GAF</td>
<td>Global Assessment of Function</td>
</tr>
<tr>
<td>GHQ28</td>
<td>General Health Questionnaire-28</td>
</tr>
<tr>
<td>HADS</td>
<td>Hospital Anxiety and Depression Scale</td>
</tr>
<tr>
<td>HAM-A</td>
<td>Hamilton Rating Scale for Anxiety</td>
</tr>
<tr>
<td>HAM-D</td>
<td>Hamilton Depression Rating Scale</td>
</tr>
<tr>
<td>HBOT</td>
<td>Hyperbaric oxygen therapy</td>
</tr>
<tr>
<td>HDRS</td>
<td>Hamilton Depression Rating Scale</td>
</tr>
<tr>
<td>HSCL</td>
<td>Hopkins Symptom Checklist</td>
</tr>
<tr>
<td>HTQ</td>
<td>Harvard Trauma Questionnaire</td>
</tr>
<tr>
<td>Hz</td>
<td>Hertz</td>
</tr>
<tr>
<td>IES (-R)</td>
<td>Impact of Event Scale (-Revised)</td>
</tr>
<tr>
<td>IPT</td>
<td>Interpersonal Psychotherapy</td>
</tr>
<tr>
<td>ITT</td>
<td>Intent-to-Treat</td>
</tr>
<tr>
<td>LOCF</td>
<td>Last observation carried forward</td>
</tr>
<tr>
<td>LSM</td>
<td>Least squares mean</td>
</tr>
<tr>
<td>MADRS</td>
<td>Montgomery-Asberg Depression Rating Scale</td>
</tr>
<tr>
<td>MANCOVA</td>
<td>Multivariate analysis of covariance</td>
</tr>
<tr>
<td>MANOVA</td>
<td>Multivariate analysis of variance</td>
</tr>
<tr>
<td>MAOI</td>
<td>Monoamine oxidase inhibitor</td>
</tr>
<tr>
<td>MASQ (-AA; -AD)</td>
<td>Mood and Anxiety Symptom Questionnaire (-Anxious Arousal; -Anhedonic Depression)</td>
</tr>
<tr>
<td>MBCT</td>
<td>Mindfulness-Based Cognitive Therapy</td>
</tr>
<tr>
<td>MBSR</td>
<td>Mindfulness-Based Stress Reduction</td>
</tr>
<tr>
<td>MCS</td>
<td>Mental Composite Score</td>
</tr>
<tr>
<td>MDMA</td>
<td>3,4-methylenedioxymethamphetamine (recreational drug ecstasy)</td>
</tr>
<tr>
<td>mg</td>
<td>Milligram</td>
</tr>
<tr>
<td>MINI</td>
<td>Mini-International Neuropsychiatric Interview</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Term</td>
</tr>
<tr>
<td>--------------</td>
<td>------</td>
</tr>
<tr>
<td>MPSS</td>
<td>Modified PTSD Symptom Scale</td>
</tr>
<tr>
<td>M-PTSD</td>
<td>Mississippi Scale for Combat-related PTSD</td>
</tr>
<tr>
<td>MRP</td>
<td>Mantram Repetition Program</td>
</tr>
<tr>
<td>NA</td>
<td>Not applicable</td>
</tr>
<tr>
<td>NET</td>
<td>Narrative Exposure Therapy</td>
</tr>
<tr>
<td>NMDA</td>
<td>N-Methyl-D-Aspartic Acid</td>
</tr>
<tr>
<td>NR</td>
<td>Not reported</td>
</tr>
<tr>
<td>NS</td>
<td>Not significant</td>
</tr>
<tr>
<td>OR</td>
<td>Odds Ratio</td>
</tr>
<tr>
<td>PANAS</td>
<td>Positive and Negative Affect Scale</td>
</tr>
<tr>
<td>PCL (-C; -M; -S; -5)</td>
<td>PTSD Checklist (-Civilian; -Military; -Specific; -DSM-5)</td>
</tr>
<tr>
<td>PC-PTSD</td>
<td>Primary Care PTSD Screen</td>
</tr>
<tr>
<td>PCS</td>
<td>Physical Health Composite Score</td>
</tr>
<tr>
<td>PCT</td>
<td>Present-Centered Therapy</td>
</tr>
<tr>
<td>PDS</td>
<td>Posttraumatic Diagnostic Scale</td>
</tr>
<tr>
<td>PE</td>
<td>Prolonged Exposure</td>
</tr>
<tr>
<td>PHQ-9</td>
<td>Patient Health Questionnaire-9 item</td>
</tr>
<tr>
<td>PSQI</td>
<td>Pittsburgh Sleep Quality Index</td>
</tr>
<tr>
<td>PSS (-I; -SR)</td>
<td>PTSD Symptom Scale (-Interview; -Self-Report)</td>
</tr>
<tr>
<td>PTCI</td>
<td>Posttraumatic Cognitions Inventory</td>
</tr>
<tr>
<td>QIDS</td>
<td>Quick Inventory of Depressive Symptomatology</td>
</tr>
<tr>
<td>Q-LES-Q (-SF)</td>
<td>Quality of Life Enjoyment and Satisfaction Questionnaire (-Short Form)</td>
</tr>
<tr>
<td>QOLI</td>
<td>Quality of Life Inventory</td>
</tr>
<tr>
<td>rTMS</td>
<td>Repetitive Transcranial Magnetic Stimulation</td>
</tr>
<tr>
<td>SAI</td>
<td>Standardized Assault Interview</td>
</tr>
<tr>
<td>SAS</td>
<td>Social Adjustment Scale</td>
</tr>
<tr>
<td>SCID</td>
<td>Structured Clinical Interview for DSM</td>
</tr>
<tr>
<td>SCL-90</td>
<td>Symptom Checklist-90 (also known as Hopkins Symptom Checklist)</td>
</tr>
<tr>
<td>SD</td>
<td>Standard deviation</td>
</tr>
<tr>
<td>SDI</td>
<td>Social Disability Index</td>
</tr>
<tr>
<td>SDS</td>
<td>Sheehan Disability Scale</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Term</td>
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<td>12-Item Short Form Health Survey</td>
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<td>SGB</td>
<td>Stellate ganglion block</td>
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<td>SI-PTSD</td>
<td>Structured Interview for PTSD</td>
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<td>SIT</td>
<td>Stress Inoculation Training</td>
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<tr>
<td>SNRI</td>
<td>Serotonin and norepinephrine reuptake inhibitor</td>
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<td>SPRINT</td>
<td>Short PTSD Rating Interview</td>
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<td>SSRI</td>
<td>Selective serotonin reuptake inhibitor</td>
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<tr>
<td>STAI (-S)</td>
<td>State-Trait Anxiety Inventory (-State)</td>
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<td>Skills Training in Affect and Interpersonal Regulation</td>
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<td>STAXI (-2)</td>
<td>State-Trait Anger Expression Inventory (-Version 2)</td>
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<tr>
<td>SITI</td>
<td>Standardized Trauma Interview</td>
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<tr>
<td>SUD</td>
<td>Substance Use Disorder</td>
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<tr>
<td>TAU</td>
<td>Treatment as usual</td>
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<tr>
<td>TBI</td>
<td>Traumatic Brain Injury</td>
</tr>
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<td>TCA</td>
<td>Tricyclic antidepressant</td>
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<tr>
<td>TLFB</td>
<td>Time Line Follow-Back</td>
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<td>Treatment Outcome Posttraumatic Stress Disorder Scale</td>
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<td>Trauma Symptom Inventory</td>
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<td>VNS</td>
<td>Vagal nerve stimulation</td>
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<td>Versus</td>
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<tr>
<td>WAS</td>
<td>Work and Social Adjustment Scale</td>
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<tr>
<td>WHOQOL (-BREF)</td>
<td>World Health Organization Quality of Life (Abbreviated Version)</td>
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Appendix C. Included Studies


Appendix D. Excluded Studies

Table D-1. Key to exclusion codes

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Appendix E. Evidence Table—Pharmacologic Studies

Shown in an associated Excel file.
Appendix F. Evidence Table—Nonpharmacologic Studies

Shown in an associated Excel file.