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Group Cognitive Processing Therapy for Veterans Experiencing Trauma: A Systematic Review

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Group Cognitive Processing Therapy for Veterans Experiencing Trauma:

A Systematic Review

by

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The Clinical Research Project is a graduation requirement of MSW students at St. Catherine University – University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

Abstract

This systematic review examined the literature regarding veterans experiencing PTSD and the use of group Cognitive Processing Therapy as an intervention. Two databases, PILOTS and socINDEX, were used to identify the 10 best studies that met criteria for this review. The 10 studies were analyzed and findings for this study supported group Cognitive Processing Therapy in reducing symptoms of PTSD for veterans. Furthermore, this study compared findings from studies done in residential PTSD programs compared to non-residential programs. Initial findings show residential treatment programs seeing more improvements and reduction in PTSD than those in non-residential treatment programs. The limitations and recommendations for future research are also discussed.

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Introduction

During war, deployed service members may witness or experience horrific things that could negatively impact their overall physical and mental health (Chard, Schumm, Owens, & Cottingham, 2010). Physical injuries are often discussed openly compared to service members' mental health or non-physical injuries. Military personnel are prone to developing posttraumatic stress disorder (PTSD) due to the variety of stressful events to which they can be exposed throughout their deployment. PTSD symptoms manifest from an event threatening the service member's life and cause severe distress (Creamer, Wade, Fletcher, & Forbes, 2011). Because military members are spending long-term deployments in high stress war environments, it is not uncommon following a deployment for veterans to experience PTSD symptoms along with other mental health symptoms (Resick, Monson, & Chard, 2014).

PTSD continues to be a prevalent problem for service members and veterans. Since 2001, roughly 2.5 million military personnel from the United States have been deployed to Iraq and Afghanistan (Schreiber & McEnany, 2015). Of the veterans that have served in Operation Iraqi Freedom (OIF) or Operation Enduring Freedom (OEF), it is estimated that roughly 11-20 out of every 100 have PTSD (U.S. Department of Veterans Affairs, 2016, para 2). Broadly, 31 % of the veterans returning from deployment in Iraq were given a mental health diagnosis, with PTSD accounting for over half of those (Savitsky, Illingworth, & Dulaney, 2009, p. 333).

There are a variety of scenarios that could occur during deployment leading to PTSD. Examples include frequently being attacked, killing someone, seeing another service member injured or killed, and being injured in combat (Hoge, 2004). Other trigger scenarios could include military sexual trauma (MST) or handling dead bodies (Savitsky et al., 2009).

According to the DSM-5, symptoms of PTSD include intrusive memories of the trauma (including flashbacks, dissociation, and psychological distress), avoidance, change in mood (such as distorted cognition, loss of interest in previously enjoyable activities, unable to feel happiness), hyper arousal (including outbursts, hyper vigilance, easily startling, difficulties sleeping, and inability to concentrate), lasting longer than 1 month (American Psychiatric Association, 2013). Many veterans are not seeking the treatment they need due to stigma associated with mental illness in the military, at the detriment of their home life and ability to function in society (Hoge, 2004; Savitsky, Illingworth, & DuLaney, 2009). Without treatment, veterans are at risk of experiencing violence within their home, behavior problems in children, unemployment, divorce and separation, substance abuse, and homelessness (Savitskiy et al., 2009, p. 333).

Service members may be reticent to seek mental health treatment due to factors such as stigma, lack of access to services, and disconnects between military culture and seeking help. Some service members worry they will be viewed as mentally weak by their fellow service members or that seeking help will negatively impact their career because they may not be trusted to handle their job (Hoge, 2004; Held & Owens, 2012). Along with this stigma, there are barriers in civilian life for veterans to receive the necessary treatment for PTSD. Common barriers include being unable to find transportation, feeling that treatment can't help them, or being embarrassed to be struggling with these problems (Kanel, 2013). Societal and personal views along with the machismo culture within the military – where being weak and vulnerable is not generally acceptable, while being strong is expected – have created significant barriers to seeking help (Held & Owens, 2012).

Reports of the symptoms of PTSD can be traced back to the American Civil War, when civilians began to notice a change in veterans returning from war. This change was known as *soldier's heart* but little was understood about the symptoms or their causes (Friedman, 2005). Later, as World War I came to an end, soldiers' post-war psychological symptoms became known as *shell shock*. This term was primarily used to describe a military member reacting to witnessing explosions, with symptoms including insomnia and panic (Friedman, 2015). During World War II, the terms *combat stress reaction* and *battle fatigue* replaced *shell shock,* though their significance was underemphasized and misunderstood (Friedman, 2015). It wasn't until 1980 that the Diagnostic and Statistical Manual of Mental Disorders III (DSM-3) added PTSD as an actual diagnosis (Friedman, 2015).

There are a variety of treatment options available for military personnel with PTSD including eye movement desensitization and reprocessing (EMDR), cognitive therapy, exposure therapy, brief psychodynamic psychotherapy, family therapy, and medication called selective serotonin reuptake inhibitor (SSRI; U.S. Department of Veterans Affairs, 2017). Due to the strong evidence supporting the use of PE and Cognitive Processing Therapy (CPT), the U.S. Department of Veterans Affairs (VA) has required that at least one of these two therapies be available for all veterans with PTSD (Kehle-Forbes et al., 2016). Group CPT is a 12-session therapy model used to help a veteran become aware of their thoughts and how they can negatively affect their mental health (Resick et al., 2014). Veterans are able to process their trauma by examining their feelings and thoughts, allowing them to understand the relationship between thoughts and emotions (Resick et al., 2014). Unlike individual CPT, group participants do not specifically discuss the traumatic event they experienced due to concerns for other members developing secondary trauma (Chard, Ricksecker, Healy, Karlin, & Resick, 2012).

Instead, the group focuses only on the cognitive skills. PE is an exposure-oriented therapy where a practitioner works with the veteran to decrease their PTSD symptoms by exposing them to and working through the trauma that caused their PTSD (Kehle-Forbes, Meis, Spoont, & Polusny, 2016).

Social workers play a critical role in helping veterans get treatment for PTSD. They have the core values to advocate for services and ensure vulnerable population's needs are getting met (National Association of Social Workers, 2008). Language and labels associated with mental health can contribute to the stigmas for military personnel. Therefore, it is crucial for social workers to be aware of how mental illness is discussed and ensure it is done in the least stigmatizing and most accepting way possible. For instance, some have suggested changing the term *posttraumatic stress disorder* to *posttraumatic stress injury* (PTSI) in hopes that the word "injury" instead of "disorder" could be more accepted within the military (Held & Owens, 2012). Social workers should also help normalize mental illness by providing education to military personnel about PTSD and other common diagnoses.

In this systematic review, I will focus on the use of group CPT in training veterans with PTSD. Specifically, I will examine the history of PTSD and CPT, discuss what the current literature has shown, and describe the conceptual framework that grounds this paper. Finally, I will examine 10 empirical studies, analyze their data, and report and discuss the findings.

Literature Review

In this literature review, I will describe where CPT originated, show how the VA saw the need for treatment and implemented it, and give an overview of the various populations that have found success in utilizing CPT. I will also address the potential for harm and ethical concerns, along with the importance of using evidence-based practices. Finally, I will describe the specifics of group CPT.

Origins of Cognitive Processing Therapy

In the general population, Cognitive Processing Therapy (CPT) was initially developed for rape and sexual assault survivors suffering from PTSD symptoms. Survivors of severe trauma develop cognitive distortions or inaccurate beliefs about the trauma they experienced which leads to PTSD symptoms and avoidant behaviors (Iverson, King, Cunningham, & Resick, 2015, p. 49). Because of this, CPT was implemented specifically to assist the client in recognizing their distorted thoughts and to learn the skills necessary to be able to process the traumatic event (Lenz, Bruijn, Serman, & Bailey, 2014).

Within the military, the use of CPT didn't become widely recognized until after the events of September 11, 2001. As the OIF and OEF wars continued and veterans returned home, the VA recognized the need for combat-related PTSD treatments. In 2006, the VA implemented a program called Cognitive Processing Therapy Training Initiative after a national policy was passed stating all veterans with PTSD were to have equal access to effective evidence-based practices for treatment (Chard et al., 2012). From 2006 to 2012, thousands of military mental health providers were given training through the Department of Defense on various evidence-based treatments (Borah et al., 2013). The VA has not only provided individual CPT but group

CPT (G-CPT) as well as combined individual and group options, although group options are not as common (Chard et al., 2012).

Due to the infrequency with which group G-CPT is offered, not much research exists on its practice and effects. Group-based CPT is very similar to individual in that the weekly sessions follow the same topics, focus, and examination of the distorted cognition; however group sessions do not spend time discussing the trauma each member individually experienced (Chard et al., 2012). There are a limited number of studies available on group CPT being utilized for veterans and military personnel.

Cognitive Processing Therapy Research

CPT continues to be studied as an effective option for PTSD treatment. Originally, CPT was used successfully to treat PTSD for sexual assault survivors and survivors of other traumatic events in civilian life. The VA implemented their own CPT manual specific to the military and trauma experienced within that population (Resick et al., 2014). There are a variety of treatment options for PTSD; however, CPT is considered to be one of the largest evidence-based practices (Kehle-Forbes et al., 2016). This method of treatment has been shown to be effective in a wide range of populations, including survivors of rape or childhood sexual abuse and veterans returning from combat with trauma (Chard et al., 2012).

Group CPT has been studied in a variety of settings including residential programs, outpatient programs, and a teleconference program, and in a variety of sub-populations, including veterans and active duty members with comorbid a personality disorder, depression, and a TBI. Researchers have also explored CPT as treatment for veterans who have experienced Military Sexual Trauma (MST).

Selection and Assessment Process: Reducing the Potential for Harm

In order for an individual to be selected to participate in a CPT treatment group, he or she must meet certain criteria. All studies in this systematic review indicated that participants must have experienced a traumatic event that led to PTSD symptoms. Participants were not selected if they were experiencing any suicidal or homicidal feelings or thoughts. Resick et al. (2014) indicated that military personnel struggling with substance dependency should first seek treatment prior to addressing PTSD unless they contract with the therapist that they will not abusively drink during their CPT treatment. These were the primary reasons individuals were not selected to participate in group CPT in the empirical studies.

Research shows certain therapeutic interventions might be more effective than others, depending on the specific type of trauma suffered. Prolonged Exposure (PE) is another effective evidence-based practice for trauma that can be an option when CPT is not appropriate (Kehle-Forbes et al., 2016). Tuerk et al. (2010) found PE was effective for PTSD symptoms within the civilian population and not just for combat veterans. While CPT or PE might not be the right treatment option for certain clients, clinicians are using evidence-based practices to ensure their clients are receiving the most appropriate treatment possible.

Clinicians must find the delicate balance of working through the trauma while not pushing the client too far, thus causing further harm. While researchers work to find the most effective and safe treatment options for veterans with PTSD, there should always be concern for a participant's wellbeing when addressing a traumatic event. The potential for harm when working with clients that have experienced trauma is great and clinicians should approach each case with care. Every 80 minutes, a veteran commits suicide, while every 36 hours an active duty military member commits suicide (DeFraia, Lamb, Resnick, & McClure, 2014).

Group therapy introduces new concerns for clinicians as they aim to help their patients seek help safely. Because group therapy is sometimes delivered via web cameras or telephones, and because the therapy session can be emotional or painful, patients may enter an emotionally volatile state while the clinician is not physically able to ensure their safety (Morland, Hynes, & Mackintosh, 2011). Social workers should be especially mindful of the potential for harm while providing group CPT. While research shows positive improvements for participants, some can still experience negative effects from it.

Ethical Concerns

Social workers practice strictly under the National Association of Social Workers (NASW) Code of Ethics. It provides information to social work clinicians on the ethical standards they are expected to uphold throughout their practice with clients and careers. By following the guidelines put in place by NASW, social workers are able to ensure they are using best practice and skills for the safety of the individuals they work with (National Association of Social Workers, 2008, p. 2). NASW guides social workers to avoid clients being harmed while receiving services.

Social workers are also expected to continuously contribute to the social work profession in regards to not harming clients. If there are concerns for harm or practicing unethically, it is a social worker's duty to advocate for those clients and discontinue practices. Social workers should further work toward determining better therapeutic interventions that will bring no harm to those clients. One way clinicians can ensure they are providing the best services possible is by employing evidence-based practices (further discussed in the "Evidence-Based Practice" section). It is crucial for the social work profession that researchers continue monitoring

treatments and examining ways in which they can better improve their practices for working with clients whose needs are constantly changing.

Evidence-Based Practice

When providing specific interventions for clients, clinicians should use evidence-based practices (EBP) to ensure they are providing services that are effective and safe for their clients. In short, evidence-based practice can be defined as "a process of using evidence to inform practice" (Dolgoff, Harrington, & Lowenberg, 2012, p. 250). Use of professional judgment and treating the client as an individual are both essential to the ethical implementation of EBP (Dolgoff et al., 2012). Social workers are expected to be competent and continue to develop as professionals as their careers progress (National Association of Social Workers, 2008). According to the NASW (2008), social workers need to be knowledgeable on the latest evidence-based practices in order to be competent and provide ethical services for their clients.

Conceptual Framework

A conceptual framework is used to guide research and allows the researcher to organize ideas. It is "a frame of reference that serves to guide a research study and is developed from theories, findings from a variety of other research studies, and the author's personal experiences and values" (Grinnell, Williams, & Unrau, 2016, p. 526). This systematic review is grounded in the Social Cognitive Theory (SCT). SCT is a well-known theory in the social work field that's used to understand why veterans develop PTSD following a traumatic event.

Social Cognitive Theory

Social Cognitive Theory "focuses on how the traumatic event is constructed and coped with by a person who is trying to regain a sense of mastery and control in his or her life" (Resick et al., 2014, p. 1). In optimal circumstances, a veteran who hasn't experienced trauma is able to function in society and not experience PTSD symptoms. In non-optimal circumstances, a veteran with PTSD will process and construct reality in a distorted way. Group CPT allows a veteran to examine his or her beliefs about the trauma, acknowledge the distorted thoughts, and change them.

Personal Factors

Cognition, along with affect and biological events, are personal factors that are a major part of Social Cognitive Theory. According to Pajares (2002), "Cognition plays a critical role in people's capability to construct reality, self-regulate, encode information, and perform behaviors" (p. 1). Under optimal circumstances, a veteran is able to regulate and manage emotions and thoughts and function in society. Veterans under non-optimal circumstances with PTSD have difficulties interpreting information, experience distorted thoughts, and struggle to live daily life due to the inability to cope with the event (Resick et al., 2014). These veterans are

likely to lose the ability to self-reflect on the trauma, creating an inability to process their experience in a healthy manner (Stajkovic & Luthans, 1979). When working on the cognition portion of PTSD, group CPT helps veterans examine and acknowledge their distorted thoughts in order to interpret the traumatic event in a healthy way so they can begin to process the trauma they experienced.

Behavior

The Social Cognitive Theory focuses heavily on behavior, specifically the ability to self-regulate. According to Stajkovic and Luthans (1979), the principle of self-regulation states that "people do not behave to suit the preferences or demands of others. Behavior is initiated and regulated by internal self-set standards and self-evaluative reactions to exerted behaviors" (p. 130). A veteran without trauma will have a set of standards for their behaviors. Their behaviors will be self-regulated and under control, and the individual will be capable of examining his or her actions. In contrast, a veteran with trauma will struggle with the ability to self-regulate their actions and may lose a sense of the set standards for how to behave. Group CPT helps veterans focus on distorted thoughts and how they affect emotions and behavior (Resick et al., 2014).

Environmental Influences

The final major piece of the Social Cognitive Theory is environmental influences. Pajares (2002) discussed how the environment influences behavior, arguing that while factors such as socioeconomic status and family structure don't directly affect behavior, "they influence people's aspirations, self-efficacy beliefs, personal standards, emotional states, and other self-regulatory influences" (p. 2). Under optimal circumstances, veterans without trauma and with positive environmental factors will experience positive behaviors emotionally and mentally. Under non-optimal circumstances, a veteran who has experienced trauma and does not have

positive environmental factors will struggle with self-esteem, managing emotions, and self-efficacy. Utilizing group CPT with veterans in non-optimal circumstances can have beneficial effects due to the environment indirectly influencing the veteran's behaviors. Group CPT works to address these behaviors that, in turn, can lead to positive environmental outcomes such as relationally.

Personal Motivation

My personal motivation for this systematic review is to gain more insight into group CPT than what already exists. At some point during my undergraduate education, I became fascinated with groups and the positive effects they can have on participants. Along with my love for group work, I have always had a special place in my heart for veterans and wanting to make sure they are given everything they need to get back to their life away from combat. My hope is to present the findings and potentially provide new ideas on how to better serve this population.

Professional Motivation

The main goal I have with this study is to provide literature for future researchers to use as a base for their own research. To my knowledge, this is the first systematic review on group CPT and therefore it has the potential to provide new knowledge and findings, as well as build momentum to continue the development of group CPT as a therapeutic intervention for veterans. Overall, my intentions for this study are to provide the reader with a thorough understanding of group CPT and its effects on veterans' PTSD, and add to the current literature on group CPT.

Methods

Research Purpose

The purpose of this study is to explore group cognitive processing therapy as an intervention for veterans with PTSD. Due to the lack of research on the topic, a systematic review will provide readers with an overview of the current literature. In this systematic review, I collected and analyzed empirical research studies to determine if group CPT is effective and could be used to treat veterans' PTSD symptoms. The primary question I aim to address in this study is whether group CPT for veterans with PTSD is an effective, appropriate, and viable treatment option. I examined both quantitative and qualitative studies to ensure the best empirical findings were included in this systematic review.

Selection Criteria

My goal when conducting this research was to review published empirical intervention studies focusing on group-based CPT used in the treatment of PTSD for veterans. I aimed to reach full saturation in my research process. Due to the large number of available articles on group-based CPT (5,209), I included only articles with the terms *veterans* or *posttraumatic stress disorder* in the title in the beginning phase of the research. I excluded articles that were not available online and did not include the terms *veteran* or *posttraumatic stress disorder* from this systematic review. I also excluded unpublished studies from this review.

Search Strategy

I carried out the literature search between October, 2016 and February, 2017, using the PILOTS (Published International Literature On Traumatic Stress) database. The initial search term was *posttraumatic stress disorder*. The preliminary search results identified 14,902 studies. I then narrowed the search terms to *posttraumatic stress disorder* and *veterans,* resulting in 3,979

studies. I further narrowed the search by adding the term *group cognitive processing therapy,* resulting in just 43 studies. Out of 43, I rejected 23 due to the context of the data being studied; five due to the type of groups used (e.g. controlled, experimental); five because they were dissertations, systematic reviews, or editorials; and four due to the large varieties of treatment options utilized. Out of the 43 studies identified in PILOTS, I selected six studies to be incorporated in this systematic review.

I also obtained articles for this systematic review from the SocINDEX database. The search terms *veterans* and *posttraumatic stress disorder* resulted in 1,136 results. I further narrowed the search by adding the term *group cognitive processing therapy*, which resulted in 12 studies. After examining each study, I left out eight because they did not specifically examine group cognitive processing therapy, leaving four to be utilized. This resulted in 10 viable studies from the two databases. I thoroughly examined each article to ensure it was appropriate for this systematic review. Figure 1 below illustrates the exact selection process as discussed above. Table 1 provides a complete list of each of the empirical studies by author, year, and title.

Table 1

Empirical Studies: Group CPT for Military Personnel Experiencing PTSD

Number	Author	Year	Title
1	Alvarez, J., McLean, C., Harris, A. H., Rosen, C. S., Ruzek, J. I., & Kimerling, R.	2011	The comparative effectiveness of cognitive processing therapy for male veterans treated in a VHA posttraumatic stress disorder residential rehabilitation program.
2	Castillo, D. T., Lacefield, K., C'de Baca, J., Blankenship, A., & Qualls, C.	2014	Effectiveness of group-delivered cognitive therapy and treatment length in women veterans with PTSD.
3	Morland, L. A., Hynes, A. K., Mackintosh, M., Resick, P. A., & Chard, K. M.	2011	Group cognitive processing therapy delivered to veterans via telehealth: A pilot cohort.
4	Resick, P. A.,Wachen, J. S., Dondanville, K. A., Pruiksma, K. E., Yarvis, J. S., Peterson, A. L., & Mintz, J.	2017	Effect of group vs individual cognitive processing therapy in active-duty military seeking treatment for posttraumatic stress disorder: A randomized clinical trial.
5	Walter, K. H., Varkovitzky, R. L., Owens, G. P., Lewis, J., & Chard, K. M.	2013	Cognitive processing therapy for veterans with posttraumatic stress disorder: A comparison between outpatient and residential treatment.
6	Resick, P. A., Wachen, J. S., Mintz, J., Young-McCaughan, S., Roache, J.D., Borah, A. M., Borah, E.V., Dondanville, K. A., Hembree, E. A., Litz, B. T., & Peterson, A. L.	2015	A randomized clinical trial of group cognitive processing therapy compared with group present-centered therapy for PTSD among active duty military personnel.
7	Voelkel, E., Pukay-Martin, N. D., Walter, K. H., & Chard, K. M.	2015	Effectiveness of cognitive processing therapy for male and female U.S. veterans with and without military sexual trauma.
8	Chard, K. M., Schumm, J. A., McIlvain, S. M., Bailey, G. W., & Parkinson, R. B.	2011	Exploring the efficacy of residential treatment program incorporating cognitive processing therapy-cognitive for veterans with PTSD and traumatic brain injury.
9	Walter, K. H., Dickstein, B. D., Barnes, S. M., & Chard, K. M.	2014	Comparing effectiveness of CPT to CPT-C among U.S. veterans in an interdisciplinary residential PTSD/TBI treatment program.
10	Walter, K. H., Bolte, T. A., Owens, G. P., & Chard, K. M.	2012	The impact of personality disorders on treatment outcome for veterans in a posttraumatic stress disorder residential treatment program.

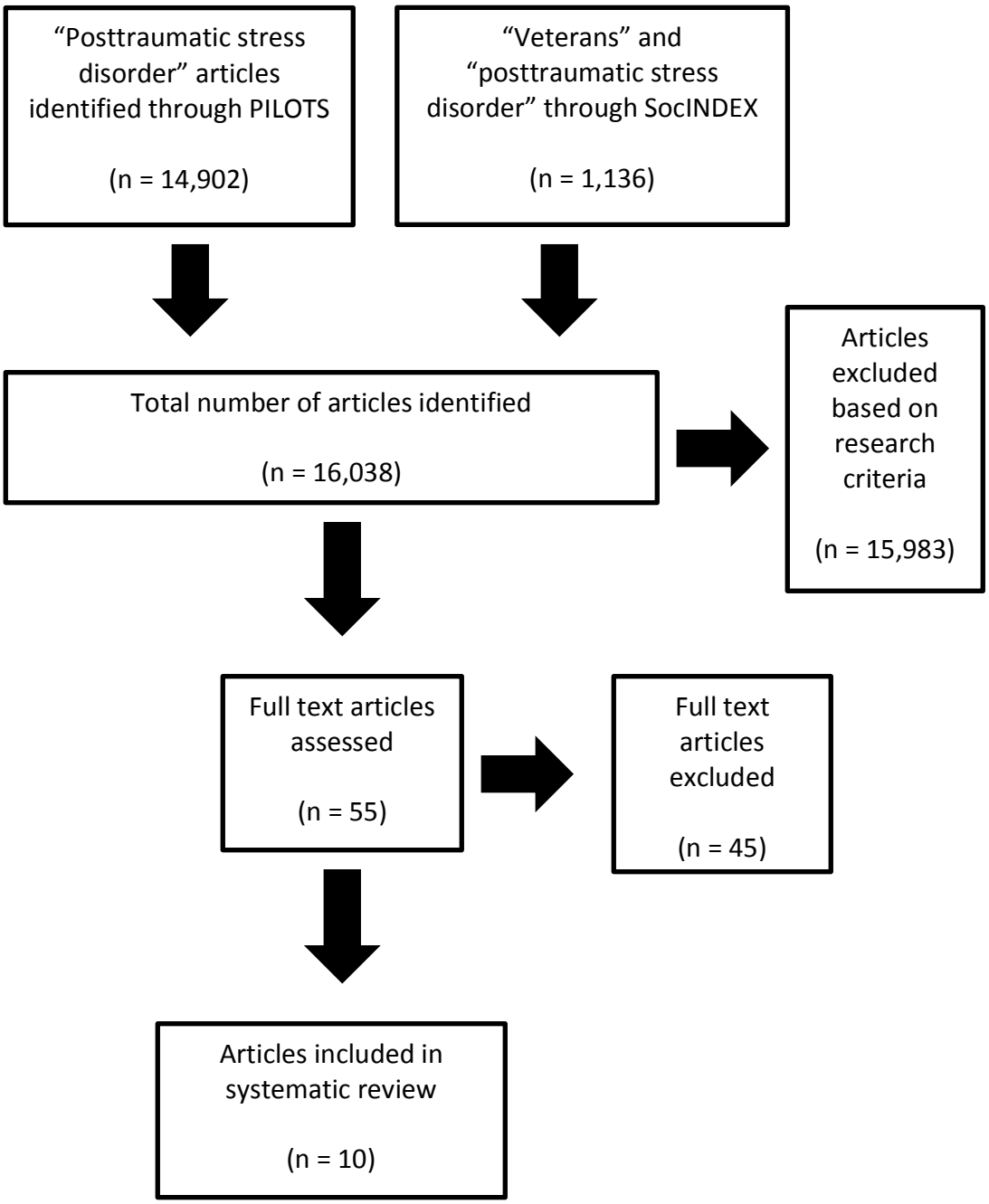

Figure 1. Diagram of study selection process.

Data Abstraction and Analysis

For this systematic review, I analyzed the data in full. I reviewed all 10 empirical studies extensively and extracted data during the review process. First, I went through all of the articles and pulled important information from each study. I extracted data on the specifics of the study, setting (i.e. residential or outpatient), and format of the cognitive processing therapy used (individual, group, or combined). In later review, I analyzed data to determine what was missing within the literature and areas that lacked information or could have been improved. Once I had extracted all the data, I placed it into a table to summarize each study's specific information (see Tables 2.1-2.5).

Findings

There were 10 empirical intervention studies that met the selection criteria of group CPT for veterans with PTSD for this systematic review. In the Findings section, I provide an overview of the 10 studies and highlight specific areas including demographics, inclusion criteria, measures, fidelity, intervention, and methods. Finally, I analyze the empirical studies to evaluate whether group CPT is an effective treatment option for veterans with PTSD symptoms. The primary theme that emerges through the analysis is a comparison of residential treatment versus non-residential (outpatient) treatment. See Tables 2.1-2.5 for an overview of each of the studies.

Table 2.1

Summary of Research Articles

Study Focus	Veterans in residential treatment for PTSD	Group-delivered CPT for women veterans with PTSD
Author(s)	Alvarez et al.	Castillo et al.
Year	2011	2014
Study question	"Is group CPT a more effective residential treatment option for veterans with PTSD than the current trauma-focused group?"	"How many sessions are most effective and efficient in decreasing PTSD symptoms (8, 10, or 12)?"
Evaluation aim	Efficacy of group CPT vs. Trauma-focused group (TAU)	Group CPT treatment lengths: 8 weeks vs. 10 weeks vs. 12 weeks
Location	PTSD Rehabilitation Program in the VHA Healthcare System – Location Unknown	Southwest VA Women's Trauma Outpatient Clinic
Sample size	197 (male) – 104 CPT, 93 TAU	271 female
Age	Average age 52 y/o	Average age 45 y/o
Inclusion criteria	Veterans; Diagnosis of PTSD; Participation in a trauma-focused group during the period of this program; Informed consent	Female; Veteran; Diagnosis of PTSD
Intervention (IV)	Group CPT vs. TAU group	Group-delivered CPT
Treatment	CPT- 14 group sessions 4-5 patients 2 facilitators TAU- 15 group sessions 6-9 patients 2 facilitators	Structured manualized group CPT
Design	Quantitative Pre-/Post-	Quantitative Pre-/Post-
Selection	Referrals (from outpatient/acute psychiatric inpatient)	Psychological testing and structured interviews
Measures	PTSD Checklist (PCL); The Beck Depression Inventory (BDI); Symptom Checklist (SCL-6); Quality of Life-BREF (WHOQOL-BREF)	PTSD Checklist (PCL); Clinician-Administered PTSD Scale (CAPS)
Statistical analysis	Analyses of variance (ANCOVAs)	Chi-square test; Analysis of variance (ANOVA); Repeated measures analysis of variance (RM ANOVA); Intention-to-treat (ITT)
Findings	Participants in the CPT group were found to have greater reduction in symptoms than those in the TAU group; No significant difference for physical/social quality of life	All 3-group lengths were found to show a significant decrease in PTSD symptoms, however no significant differences between the group lengths
Limitations	No randomized control trial; PTSD measure not clinician-administered; No female participants	Lack of randomization; Self-report for outcome measure; Limited analysis on non-completers
Recommendations	Continue research on CPT Replace old therapies with new	Explore the impact of group-only CPT with multiple populations Create randomized control trials

Table 2.2

Summary of Research Articles, cont.

Study Focus	Residential treatment for veterans with PTSD/TBI – group and/or individual CPT	Teleconferencing – Rural Veterans
Author(s)	Chard et al.	Morland et al.
Year	2011	2011
Study question	"Is CPT-C an effective treatment in a residential setting for veterans with PTSD and TBI?"	"How effective is group CPT with video teleconferencing compared to in-person delivery for combat-related PTSD?"
Evaluation aim	Efficacy of CPT-C for PTSD comorbid TBI	Evaluate efficacy of teleconferencing as treatment option for rural veterans
Location	VA TBI-PTSD Residential Program – Location Unknown	Hawaiian Islands
Sample size	42 male	11 male
Age	Average age: 33 y/o (mild TBI) 38 y/o (moderate/severe TBI)	28-77 y/o
Inclusion criteria	Male; Veteran; PTSD and TBI diagnosis; 1 year post-TBI	Male; Active duty reserves, National guard, and veterans receiving treatment at VA clinics on Hawaiian Islands; Current combat-related PTSD; No active psychotic symptoms; Not homicidal, or suicidal
Intervention (IV)	Group CPT-C and individual CPT-C	Manualized Group CPT-C
Treatment	7 wks residential therapy CPT-C group – 2 times wkly, individual CPT-C – minimum of 2 times a wk Primary focus on active-trauma treatment 23 hours/wk psychoeducational group	12 group sessions 90 minutes each 2x per wk for 6 wks 1 group – NP 1 group – VT
Design	Quantitative Pre-/Post-	Pre-/Post-/6 Months Post-
Selection	Provider Referrals	Random assignment – video teleconferencing or in-person group CPT
Measures	Clinician-Administered PTSD Scale (CAPS); The Beck Depression Inventory-II (BDI-II); PTSD Checklist (PCL)	Clinician-Administered PTSD Scale (CAPS)
Statistical analysis	Analyses of variance (ANOVA); Bonferroni correction	Robust rank-order tests; Wilcoxon signed rank tests
Findings	Veterans with PTSD and TBI showed declines in their PTSD and depression symptoms; Veterans with mild TBI showed less improvement in PTSD symptoms compared to moderate/severe TBI	Not specifically discussed
Limitations	Small sample size; Additional services provided with unknown effects (psychoeducational group, etc.)	Significant differences in pre-, post-, and 6-month follow-up scores; Initial findings support group CPT-C with VT
Recommendations	Further research to determine most effective intervention within residential treatment	Small pilot study Single cohort Examine VT throughout country; Larger sample sizes

Table 2.3

Summary of Research Articles, cont.

Study Focus	Residential - Military Sexual Trauma	Residential Treatment – PTSD/TBI Program
Author(s)	Voelkel et al.	Walter et al.
Year	2015	2014
Study Question	"Is CPT effective in residential treatment with treating full- or subthreshold PTSD in veterans with or without MST-IT?"	"Is CPT or CPT-C in residential treatment more effective for veterans with PTSD and a history of TBI?"
Evaluation Aim	Impact participant's gender has on MST-IT and treatment effectiveness	Evaluate the most effective treatment for veterans with PTSD comorbid TBI
Location	Cincinnati Veterans Affairs Medical Center	VA Hospital – Residential
Sample Size	481 participants, 273 men and 208 women	86 male
Age	Average age 47 y/o	Not specifically discussed
Inclusion Criteria	Veterans; Diagnosis with PTSD; Either MST-IT or endorse a different index trauma (e.g. combat, childhood sexual assault, transportation accident); No current substance/alcohol abuse or dependence	Veteran; Meet criteria in DSM-IV for PTSD History of TBI (1 year post); Able to complete daily living activities; No ongoing medical issues
Intervention (IV)	Individual CPT and group CPT	CPT-C or CPT; Combined group and individual sessions
Treatment	Residential - 7 wks 10-12 veterans per group 12, 60-minute individual sessions 12, 90-minute group sessions	Residential program 8 wk, 2 times per wk 60 minutes-individual 90 minutes-group 15 psycho-educational groups per wk (60 mins each) Cognitive enhancement group
Design	Pre-/Mid-/Post-	Pre-/Mid-/Post-
Selection	Self-referred or referred by a care provider from the VA ; Eligible for residential treatment	Not specifically discussed
Measures	Clinician-Administered PTSD Scale (CAPS); PTSD Checklist – Stressor Specific Version (PCL-S); Beck Depression Inventory-11 (BDI-II); Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I)	Clinician-Administered PTSD Scale (CAPS); Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I); PTSD Checklist (PCL-S); Beck Depression Inventory-II (BDI-II)
Statistical Analysis	Analyses of Variance 1(ANOVA); Hierarchical Linear Model (HLM)	Multilevel modeling (MLM); Restricted maximum likelihood estimation (REML); Bonferroni Correction
Findings	All scores decreased over time; Women's PTSD symptoms decreased more dramatically than men's; Men with MST-IT presented with higher PTSD symptoms than those without	Veterans in CPT group reported greater decrease in depression than those receiving CPT-C; TBI severity was found to not be a predictor in treatment outcome
Limitations	Participants not randomly assigned treatment groups; No control group; Residential setting – provided variety of other treatments; No access to veterans medication; No follow-up scores	Possible other interventions provided influenced outcome; Not randomized control trial; Not tested for equivalence; Not able to be population generalized; No age range of participants
Recommendations	Continue examining how MST and the participant's gender predicts the treatment outcome; Examine the culture of combat being a risk factor for MST	Further understand how veterans with comorbid diagnoses respond differently to treatment

Table 2.4

Summary of Research Articles, cont.

Study Focus	Outpatient vs. Residential Treatment	Group vs. Individual CPT – Active Duty
Study	Walter et al.	Resick et al.
Year	2013	2017
Study Question	"Do veterans receiving CPT for PTSD in outpatient treatment (individual CPT) vs. residential treatment (individual and group CPT) differ for pretreatment demographics, symptom severity, and treatment outcome? (p. 2)"	"How does individual CPT affect PTSD and co-occurring symptoms compared to group CPT?"
Evaluation Aim	Demographic differences	Effects group vs. individual CPT has on PTSD and co-occurring symptoms
Location	Midwestern VA Medical Center	Fort Hood, Texas
Sample Size	992 total; Outpatient=514; Residential=478	268 (244 men, 24 women)
Age	Outpatient mean=43 y/o, residential mean=48 y/o	Mean age = 33.2 y/o
Inclusion Criteria	Met full diagnostic criteria for PTSD; Attended at least 1 session of individual CPT; Provider referral	Active duty; PTSD following deployment; Stable medication therapy ; Criterion A traumatic event
Intervention (IV)	Individual CPT – Outpatient; Individual and group CPT – Residential	Group and individual CPT – randomized clinical trial
Treatment	Outpatient: 12, 60-min individual sessions; Residential: 7 wks; Group met 2x per wk; 12, 90-min sessions; Individual session 2x per wk, 60-min; Attended psycho-educational group sessions	6 wks total; 2x per wk; 90-minute group or 60-minute individual
Design	Pre-/Post-	Pre-/2 wks Post-/6 months Post-
Selection	Self-referral or referral from VA care provider	Recruited through advertisements; Direct referrals
Measures	Clinician-Administered PTSD Scale (CAPS); Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I); PTSD Checklist – Stressor Specific (PCL-S); Beck Depression Inventory-II (BDI-II)	Posttraumatic Symptom Scale-Interview Version (PSS-I); PTSD Checklist – Stressor Specific (PCL-S); Beck Depression Inventory-II (BDI-II); Alcohol Use Disorders Identification Test-Interview Version (AUDIT); Brief Traumatic Brain Injury Screen; Beck Scale for Suicidal Ideation (BSSI)
Statistical Analysis	Bivariate analyses; Multilevel modeling	Intention-to-Treat; Mixed Regression Model
Findings	All symptom severity scores improved from pre- to post- treatment; Outpatient veterans much younger, less educated, mostly male, white, married, and in the recent service era (p. 8); Veterans in residential program more likely to be service connected	Both group and individual CPT improved PTSD symptoms; Individuals improved significantly more; Depression symptoms improved significantly for both
Limitations	Residential veterans received more programing than outpatient; Unknown impact of group + individual combined; Missing data (post-treatment measures); Timing of post-treatment measures	Low number of female participants
Recommendations	Further understand relationship between PTSD and comorbidities; Compare outcomes of veterans individual CPT to group and individual CPT	Focus on issues within the military that could affect treatment of PTSD; Examine how comorbidities effect treatment

Table 2.5

Summary of Research Articles, cont.

Study Focus	Residential Group and Individual CPT – Veterans and Personality Disorders	Group CPT-C vs. Group Present-Centered Therapy – Active Duty
Author(s)	Walter et al.	Resick et al.
Year	2011	2015
Study Question	"How does a personality disorder impact the outcome of treatment for male and female veterans in a residential PTSD program?"	"Does group CPT-C work as an effective treatment option for active duty personnel?"
Evaluation Aim	Evaluate impact of personality disorder on treatment outcome for residential PTSD programs	Determine effectiveness of group CPT-C compared to group PCT
Location	Veterans Affairs Medical Center in the Midwest	Fort Hood, Texas
Sample Size	166 veterans (75% participants male, 25% female)	108 service members (100 men, 8 women)
Age	Average age 51 years old	CPT-C average age = 32 y/o; PCT average age = 32 y/o
Inclusion Criteria	Current PTSD; Referral by a mental health practitioner	PTSD after military deployment to or near Iraq or; Afghanistan; Medication stability; No suicidal or homicidal ideation; 18 years and older; Criterion A traumatic event during military deployment
Intervention (IV)	Residential group CPT; Psychoeducational group therapy	Group CPT vs. Group Present-Centered Therapy
Treatment	7 wks residential; Combined group CPT and individual; Group- 2x per wk, 12 sessions, 90 mins; Individual- 2x per wk, 13 sessions, 50-60 mins	Individual therapy prior to group - determine their targeted index event in treatment; Random assignment; CPT-C or PCT groups; 90-minute group; 2x per wk; 6 wks
Design	Pre-/Post-	Measured weekly before group; Pre-/Post-/2 months Post-/6 months Post-/12 months Post-
Selection	Referral from a mental health practitioner	Direct referrals; Advertisement; Electronic records
Measures	Clinician-Administered PTSD Scale (CAPS); Structured Clinical Interview for DSM-IV Axis II Personality Disorder (SCID-II); Beck Depression Inventory-II (BDI-II); PTSD Checklist – Stressor Specific Version (PCL-S)	PTSD Checklist – Stressor Specific (PCL-S); Clinician-Administered PTSD Scale (CAPS); Beck Depression Inventory-II (BDI-II); Posttraumatic Symptom Scale-Interview Version (PSS-I); Life Events Checklist (LEC)
Statistical Analysis	Multivariate analysis of covariance (MANCOVA); Repeated measures multivariate analysis of covariance (RM MANCOVA); Bonferroni Correction	Mixed effects regression models with repeated measures, SAS PROC MIXED
Findings	Veterans with personality disorder benefit from PTSD residential program; CPT is effective treatment for patients w/ and w/o personality disorder diagnoses with PTSD	Stronger decrease in PTSD severity for CPT-C group than PCT; Group therapy decreases PTSD symptom severity; CPT-C more effective than PCT; Depressive symptoms reduced more with CPT-C; PTSD steadily declined in all CPT-C cohorts, was variable for PCT cohorts
Limitations	Reliance on categorical approach to define personality pathology; Can't compare benefits of individual and group CPT and psychoed. groups	Small sample size – only able to detect large differences between groups; Low follow-up rates (due to location reassignment); Lack of women (no gender comparison)
Recommendations	Look at whether the inclusion of therapeutic elements would be helpful for participants; Attempt to replicate in outpatient setting	Provide similar study examining the variable length of CPT-C and look for improvements; Examine group vs. individual CPT-C; Test different formats/ treatments

Summary of Studies Used in Systematic Review

Demographics. All 10 studies were published between the years 2011 to 2017. All studies met selection criteria for group CPT for military personnel experiencing PTSD symptoms. Sample ages ranged from 28 to 77 years old. Sample sizes ranged from 11 to 992 participants. Out of the 10 studies, only one study focused on female veterans, four studies focused on males, and four studies combined male and female participants (three of the four had significantly higher numbers of male participants). Six of the 10 studies focused on residential treatment, while four focused on outpatient treatment. Geographically, three out of the 10 studies were located in the Southwest, three were located in the Midwest, one was located in Hawaii, and three were located within unspecified VA locations.

Inclusion criteria. The inclusion criteria were utilized in each study to ensure they met the requirements to participate in the research. All 10 studies required participants have a diagnosis of PTSD. Seven of the 10 studies required participants to be veterans; two required participants be active duty; and one allowed active duty, reserves, National Guard, and veterans to participate. One study required participants to be female, two studies required male participants, and the remaining eight did not include the gender of the participant as inclusion criteria. Two studies required participants to be one year post traumatic brain injury, two studies required medication stability, and one study required no current substance or alcohol abuse.

Measures. There were many measures used throughout the studies to determine the effectiveness of the intervention(s). The most common measures utilized included the PTSD Checklist/PTSD Checklist – Stressor Specific Version (PCL/PCL-S), Clinician-Administered PTSD Scale (CAPS), the Beck Depression Inventory/Beck Depression Inventory-II (BDI/BDI-II), and the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I). PCL/PCL-S

was the measure used most often and was seen in nine of the 10 studies, while CAPS and BDI/BDI-II were both utilized in eight of the 10 studies.

Fidelity. Fidelity is utilized in research to ensure that all factors that affect a study's validity are accounted for to allow for accurate and honest results. This includes not only the design used for the research, but also those providing the intervention to the participants (Resnick et al., 2005). Four of the 10 studies indicated that weekly case/group consultation and supervision was provided for fidelity. Two of the 10 provided independent evaluators (one of the two also utilized supervision), while five of the 10 studies did not specifically discuss fidelity.

Interventions. The interventions utilized in this systematic review included individual cognitive processing therapy, group cognitive processing therapy, and combined group and individual cognitive processing therapy. Some studies compared group cognitive processing therapy with interventions such as trauma-focused group, group present-centered, and psychoeducational group therapy. Evaluation aims within the studies' interventions included determining effectiveness of treatment, demographics, examining the impact trauma has on treatment (such as Military Sexual Trauma), and how mental health diagnoses or physical ailments (personality disorder and Traumatic Brain Injury) impact treatment.

All group interventions included meeting twice weekly for 90-minute sessions. Four of the 10 intervention groups met twice weekly for seven weeks while three out of the 10 met twice weekly for six weeks. One out of 10 studies met twice weekly for eight weeks, and one of the 10 did not specify the length of treatment or number of weeks. Finally, one of the 10 studies specifically examined effective lengths of treatment, comparing 8, 10, and 12 weeks for best treatment outcome.

Methods. Nine out of 10 studies were quantitative studies while 1 out of the 10 studies, that conducted by Morland et al. (2011), was a mixed methods study incorporating both qualitative and quantitative data. Seven of the 10 studies used convenience sampling, while three used random assignment. Five out of the 10 studies had a pre-test/post-test design, two studies had an additional six month follow-up post-test, and another study had post-test follow ups at months 2, 6, and 12. The two final studies had a pre-, peri- (during), and post-test design.

Residential Treatment vs. Non-Residential Treatments

Residential Treatment. Six of the 10 studies examined group CPT in a residential setting (i.e. Alvarez et al., 2011; Chard et al., 2011; Voelkel et al., 2015; Walter et al., 2011; Walter et al., 2013; Walter et al., 2014). According to Walter et al. (2013), "Residential treatment is meant to provide a semi structured environment of rehabilitation where veterans can engage in PTSD treatment and sobriety efforts and address medical and psychological needs prior to full reintegration into the community" (p. 2).

Alvarez et al. (2011) studied the use of group CPT compared to trauma-focused group treatment (TAU) in a male, veteran PTSD VHA Rehabilitation Program. TAU has been utilized since 1978 within the VHA health care system. Alvarez et al. aimed to determine if group CPT was a more effective treatment option than TAU. Participants lived in the therapeutic setting for 60-90 days and participated in a variety of group interventions including CPT, psychoeducation, process groups and recreation therapy (Alvarez et al.). The group CPT was 14 sessions focused on cognitive theory of PTSD, while the previously studied group TAU was 15 sessions focused on life-span development. Alvarez et al. found that intake scores showed CPT gave veterans more symptom improvements for PTSD, depression, quality of life, coping, and psychological distress compared to TAU.

Chard et al. (2011) discussed the increasing number of veterans returning from the wars in Iraq and Afghanistan with PTSD symptoms and a TBI, as well as the controversy surrounding how best to treat these comorbid diagnoses. They examined the efficacy of CPT-C (CPT-Cognitive Only) in treating veterans with PTSD and TBI. Chard et al. studied male veterans in a 7 week VA TBI-PTSD residential treatment program. Veterans participated in CPT-C group (CPT-Cognitive Only) twice a week along with a minimum of two individual CPT-C sessions per week. They also participated in speech therapy, psychoeducational groups, and a cognitive enhancement group. This study compared those with a mild TBI to those with a moderate-severe TBI. Results showed that there were no significant differences for outcome measures when comparing the mild TBI group to the moderate-severe TBI group. However, further analysis shows that including CPT-C in a residential treatment program could be a promising treatment intervention for veterans with PTSD and TBI. Chard et al. found that the pre- to post- treatment measures of PTSD and depression were reduced significantly.

Voelkel et al. (2015) examined the use of CPT for both male and female veterans who had PTSD from either Military Sexual Trauma (MST) or a different traumatic event. Participants were receiving treatment at either the men's or women's residential PTSD treatment program at Cincinnati Veterans Affairs Medical Center. The program was 7 weeks long combining both group and individual CPT. There were 12 sessions (group and individual); each group session was 90 minutes long and each individual session was 60 minutes long. Voelkel et al. explored how gender in veterans with or without MST affected the treatment outcomes. It was found that women experienced greater improvement rates compared to men. Men with MST presented with higher PTSD symptoms than men experiencing PTSD symptoms without MST. For women, this was not the case. These findings suggested women with MST are likely

to have an anxiety disorder comorbid the PTSD where as men are more likely to have an alcohol or substance use disorder. Overall, women in this study experienced a faster reduction in PTSD symptoms than men. Results showed significant improvements with outcome measures overtime for all participants. More broadly, the study supported the conclusion that residential treatments utilizing CPT could be an effective treatment option in treating MST; however further examination of MST and CPT is recommended (Voelkel et al.).

Walter et al. (2011) examined how treatment for PTSD in male and female veterans was impacted by a comorbid personality disorder. The PTSD residential treatment program took place in the Midwest at a Veterans Affairs Medical Center for 7 weeks. Veterans participated in both group and individual CPT sessions twice per week. There were twelve 90-minute group sessions and thirteen 50-60 minute individual sessions. Along with CPT, veterans also took part in a psychoeducational group and incorporated some Dialectical Behavior Therapy (DBT). Walter et al. (2011) found that veterans with personality disorders showed benefits in their post-treatment scores by participating in this PTSD residential program. Pre-treatment scores for veterans with a personality disorder showed severe depression scores however post-treatment scores indicated the same reduction in depression levels than those without a personality disorder.

Two years later, Walter et al. (2013) studied CPT for veterans comparing residential treatment to outpatient. This study explored whether individual CPT (outpatient treatment) compared to combined individual and group CPT (residential treatment) would influence the veteran's treatment outcome. Outpatient individual CPT consisted of 60-minute sessions, averaging 8 sessions. Residential combined individual and group CPT consisted of both individual and group meetings twice per week for 7 weeks. Group meetings included twelve 90-

minute sessions and individual meetings included twelve 60-minute sessions. Veterans also participated in psychoeducational groups daily with many areas of focus including PTSD education, anger management, and relapse prevention. Walter et al. indicated that veterans in residential treatment presented with higher symptom scores. It was found that symptoms for both residential and outpatient improved and that CPT in both individual or combined/residential or outpatient reduces depression and PTSD symptoms. Pre- and post- treatment scores for outpatient veterans were found to have lower symptoms compared to residential.

The following year, Walter et al. (2014) examined CPT to CPT-C (cognitive processing therapy-cognitive only) and its effectiveness in treating veterans in a residential setting with PTSD and a TBI. Walter et al. wanted to determine if TBIs have an effect on treatment outcome and if there's a significant difference in reducing PTSD and depression symptoms with CPT or CPT-C. This residential PTSD and TBI program was conducted at a VA hospital; each program lasted 8 weeks. The CPT and CPT-C cohorts were provided in different years (April 2011-March 2013 and December 2008-March 2011, respectively). Both CPT and CPT-C treatments combined 14 group sessions and 14 individual sessions. Individual and group meetings were held twice weekly with 60-minute individual sessions and 90-minute group sessions. Along with CPT/CPT-C, veterans participated in 15 psychoeducational groups per week, a cognitive enhancement group, and other therapies such as speech and occupational. Unlike other studies in this systematic review, veterans also received medication management throughout this program. Walter et al. found that veterans in the CPT group experienced more of a decrease in depression compared to those in CPT-C and both CPT/CPT-C had significant PTSD symptom reduction. Furthermore, they found that treatment outcome for veterans cannot be predicted by the severity of a TBI.

Non-Residential Treatment. Four of the 10 studies examined group CPT in a non-residential setting (i.e. Castillo et al., 2014; Morland et al., 2011; Resick et al., 2015; Resick et al., 2017). Veterans receiving treatment in non-residential settings, typically in an outpatient clinic, are generally individuals experiencing new or severe PTSD (Walter et al., 2013, p. 2). Outpatient treatment for veterans can be an effective option for those needing a less intensive environment than residential treatment.

Castillo et al. (2014) implemented a study examining the effectiveness of group CPT and treatment lengths for female veterans suffering from PTSD. This study aimed to understand how the treatment lengths (12-session, 10-session, or 8-session) affect the treatment outcome. Participants received treatment in a Southwest VA women's trauma outpatient clinic where all three treatment lengths followed the same structured and manualized protocols (Castillo et al.). Results for all three-treatment lengths showed participants having experienced significant decreases in PTSD symptoms. Furthermore, this study did not indicate any significant differences between the treatment group lengths. Castillo et al. also observed that group CPT provides a more economically friendly option by providing services for more veterans at once as compared to individual CPT.

Morland et al. (2011) incorporated video teleconferencing (VT) to deliver CPT to veterans that have PTSD and live in rural areas. The aim of this study was to evaluate the effectivenss of group CPT through VT compared to the traditional in-person method. Participants were male military personnel including veterans, active duty reserves, and guard, who were receiving treatment at a VA clinic in Hawaii. Both the in-person CPT group and VT group followed the same protocol in the implementation of CPT with the only difference being the mode of delivering the therapy (in-person versus teleconferencing). The CPT consisted of

90-minute sessions held twice per week for 6 weeks. Results indicated that both in-person and VT groups showed reduction in PTSD symptoms with no significant treatment outcome differences between the groups. Morland et al. indicated that this study is supportive of rural veterans receiving CPT through VT especially when veterans have limited access to PTSD treatment due to location.

Resick et al. (2015) compared the utilization of group CPT-C versus group present-centered therapy (PCT) as a treatment option for active duty military personnel with PTSD. Participants included active duty men and women following a deployment in Afghanistan or Iraq and seeking treatment for PTSD at Fort Hood military base. Both CPT-C and PCT groups met twice weekly for 6 weeks with sessions lasting 90 minutes. Results from the study indicated that both groups experienced a reduction in PTSD severity. Furthermore, CPT-C was found to be more effective in reducing PTSD symptoms than PCT. In terms of depression severity, there was a significant difference in scores with the CPT-C group scores continuing to improve (depression severity reducing) while the PCT group's scores did not. In all, both PCT and CPT-C were found to be effective group PTSD treatments; however, CPT-C was found to result in a significantly faster rate of improvement than PCT.

Two years later, Resick et al. (2017) completed another study comparing group and individual CPT as a treatment option for active duty military personnel with PTSD. Specifically, this study aimed to learn how individual or group formatted treatment effects PTSD and co-occurring symptoms. Participants were randomized into either individual or group CPT at an army medical center. Group sessions were held twice per week for six weeks, with each session lasting 90 minutes. Individual sessions were held twice per week for six weeks, with each session lasing 60 minutes. Results from this study showed those who participated in individual

CPT sessions experienced greater reduction in PTSD symptoms than those in group sessions. Both groups were found to have significant improvements with depression symptoms.

Discussion

In this systematic review, I aimed to examine current studies on the effectiveness of group CPT for veterans with PTSD. Broadly, the findings from these 10 studies suggested that Group Cognitive Processing Therapy in a variety of settings and with co-occurring diagnoses was beneficial in reducing PTSD symptoms. While findings support group CPT as being beneficial for co-occurring diagnoses, further examination of how variables (e.g. personality disorder, participant's gender, TBI) affect the outcome of group CPT will be necessary to fully understand if it is the most effective intervention for this population.

In this study, I examined the difference in treatment outcome in group CPT residential treatment compared to non-residential treatment. All residential treatment programs utilized in this study indicated positive PTSD symptom reduction. However, not all of the studies conducted in non-residential settings concluded that group CPT was as effective as the findings in the residential treatment programs. Group CPT should continue to be researched in the context of both residential and non-residential treatment programs to further understand the difference in outcomes.

While group CPT isn't as popular as individual, this group treatment method is particularly beneficial to certain sub-groups of the veteran population, specifically those that require more intense treatment due to their inability to function in society or their higher level of needs not being met in a less intensive treatment such as outpatient. Residential treatment programs provide veterans with a structured and supportive environment. The studies reviewed indicated that a combination of various therapies and services were provided along with the group CPT. Some of these other services included attending psychoeducational groups (topics included anger management, communication skills, and substance abuse), cognitive

enhancement groups, process groups, parenting skills, and recreational therapy (Alvarez et al., 2011; Walter et al., 2014). Individual treatments were also provided as part of some residential program services including individual CPT, speech therapy, and occupational therapy. The additional services likely attributed to the high success rates reported in this study; however, it is unknown specifically the degree of influence in the positive outcomes.

Strengths and Limitations

Strengths. This systematic review possesses two main strengths. The first is that the population of veterans with PTSD has been thoroughly researched. There were thousands of research articles looking at this particular population to allow for an in-depth understanding of their needs and why they might benefit from seeking group CPT for treatment. I was able to identify gaps in the literature that could assist in determining how this systematic review could contribute to the future research.

Secondly, to my knowledge, this is the first systematic review of its kind. No other systematic review has evaluated the efficacy of group CPT for veterans with PTSD. Given its uniqueness, it will be able to provide an overview of the current literature and empirical research and allow future researchers to gain a quick understanding of research to date.

Limitations. There were three specific limitations worth noting in this systematic review. First, the sample represented within the empirical research studies utilized cannot be used to generalize the veteran population as a whole. Most samples included were male veterans with a strong lack of women veterans represented. Many of the studies were done by the VA Healthcare System; therefore, the samples do not include veterans who chose to seek treatment outside of the VA system. It is possible that there is an underrepresentation of homeless veterans experiencing PTSD symptoms who do not seek treatment in their community.

A second limitation of this study is the lack of empirical research studies available on group CPT for veterans. Two empirical studies that included active duty military personnel were included within this systematic review due to the inability to locate 10 articles that fully met the inclusion criteria. Finally, additional programing provided in the residential treatment setting is another limitation. Along with the group CPT, some veterans were provided group psycho-education, individual CPT, or cognitive enhancement group, which makes it difficult to fully understand how effective group CPT was, individually, at reducing the veterans' PTSD symptoms.

The empirical studies utilized in this systematic review also identified their own specific limitations. Limitations discussed in the studies reviewed included missing data, low follow-up rates, no gender comparison, small sample size, no control group or randomization, and unknown effects of additional services provided.

Implications of Social Work Practice

There are three implications to be drawn from this study for future clinical social work practice. Findings suggest that group CPT should continue to be utilized in residential treatment settings. While group CPT may not be as effective in non-residential settings compared to other evidence based practices, it presents positive findings potentially due to residential treatment strongly incorporates group work into the treatment programs. First, it is essential that social workers ensure veterans experiencing PTSD are treated as soon as their symptoms arise. Treatment outcomes could be positively or negatively affected by the amount of time it takes for veterans to seek help following the onset of PTSD symptoms. The research suggests that group CPT can be effective for a range of diagnoses with PTSD including TBIs and personality disorders (Chard et al., 2011; Walter et al., 2011; Walter et al., 2014).

Second, future research should examine how military culture affects the treatment of PTSD and how combat culture could contribute as a risk factor to military sexual trauma (Voelkel et al., 2015; Resick et al., 2017). There are many stigmas associated with military personnel seeking mental health treatment. In the future, clinical social workers should work towards eliminating these stigmas and normalizing the idea of seeking treatment.

Finally, social workers have a duty to continuously examine their services and ensure they are providing the most appropriate, effective, and ethical evidence-based treatments to date (National Association of Social Workers, 2008). Many of the studies indicated the need to continue research on CPT and further examine what intervention in residential treatment is most effective, as well as emphasizing the overall need for more findings supporting group CPT (i.e. Alvarez et al., 2011; Chard et al., 2011; Resick et al., 2015). Social workers must fight social injustice for vulnerable and oppressed populations, especially those who lack services (National Association of Social Workers, 2008).

Implications for Future Research

There are three implications to be drawn from this study for future research. First, the current literature for veterans with PTSD utilizing group CPT is limited. It is recommended that future studies continue to examine the effectiveness of group CPT compared to other treatment modalities available for veterans. Next, research should examine the impact, if any, that the veteran's gender has on treatment effects and outcome. Other focus areas to consider include the deployment era, specific type of trauma, and continued follow-ups for post-group CPT long-term effects (over 1 year post-treatment). Finally, future research should work to implement randomized controlled trials to ensure validity and reliability within the studies.

Conclusion

This systematic review focused on the intervention of group CPT for veterans with PTSD. Veterans deployed to war are more at risk for developing combat-related PTSD than those who aren't deployed. PTSD can have a significant impact on veterans and cause them to struggle to function in daily life. It is crucial for veterans to seek treatment so their quality of life improves and they are able to cope with the trauma in a healthy manner.

There is a large amount of literature regarding veterans and PTSD; however, there is a lack of literature on veterans seeking group CPT. While group CPT is a less popular treatment option compared to individual CPT, this systematic review led me to conclude that group CPT is an effective treatment option for veterans with PTSD. The studies reviewed indicated that group CPT could reduce PTSD symptoms in both residential and outpatient settings; however, findings in this study are more supportive of group CPT in a residential setting. Continuing research on the effectiveness of group CPT in both residential and outpatient treatment settings will contribute to ensuring veterans are provided appropriate services for their PTSD.

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