THE EFFICACY OF GROUP THERAPY AS A PRIMARY TREATMENT FOR MILITARY VETERANS

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

Posttraumatic stress disorder (PTSD) and moral injury (MI) are often comorbid in military veterans. While various manualized group treatments have demonstrated efficacy in reducing symptom severity, the effect sizes for these diverse treatments have been similar indicating something other than the intervention (e.g., peer social support) may be driving symptom reduction. This mixed methods study examined the efficacy of non-manualized group psychotherapy for reducing PTSD and MI symptom severity in military veterans. The sample (n = 34) consisted of post-911 and Vietnam military veterans, aged 30 - 78, who attended voluntary government and non-government funded PTSD groups in southcentral Pennsylvania. Participants completed self-report measures of symptom severity at the beginning of the study and again at the end of the 12-week period. Next, I conducted interviews with individual participants. Results revealed statistically significant, but clinically weak, reductions in both PTSD and MI symptom severity. Interviews revealed that participants continued to experience both hyperarousal and increased self-reflection after the intervention. Interviews also indicated that participants valued the camaraderie and social support of the group over symptom reduction. They reported a preference for the company of other veterans and providers who are veterans over non-veteran providers. The study results provide insight into the importance of group work for veterans for improving quality of life, and give voice to the veterans' living with PTSD and MI.

Keywords: *PTSD, moral injury, group therapy, military veterans, social support*

TABLE OF CONTENTS

List of Tables

List of Figures

CHAPTER 1: INTRODUCTION TO THE STUDY

Introduction

The mixed-methods study examined the efficacy of group interventions, hereafter referred to as group work, for improving treatment compliance, symptom reduction, and overall functioning in military veterans with posttraumatic stress (PTSD) and moral injury. While previous studies demonstrated the efficacy of various group treatments, the Veterans Administration continues to push individual therapy and medication as the primary modes of treatment for trauma related conditions (National Center for PTSD, 2019). This study considered the benefit of group work by measuring symptom reduction over time following professionally led, open therapy groups for military veterans with trauma and interviewing participants about their experiences living with trauma.

Background

The Military and Trauma

Military service is unique given that, since becoming an all-volunteer force in 1974, only 1% of the American population has served in uniform (National Academy of Sciences, 2013). Most serving after 911 have deployed in support of war at least once, ranging from 56% of the Army (the largest service) to 84% of the Navy and Marine Corps (National Academy of Sciences, 2013). Many active military and veterans live with trauma related to or aggravated by military service, and most struggle in some way with reintegration into civilian society (Shepherd et al., 2021; Vogt et al., 2021). Although these veterans may either be reluctant to admit they need treatment, doubt it will really help, or do not trust the Veterans Administration, they typically report feeling

much more nonjudgmental acceptance from and willingness to open up to other veterans (Aikins et al., 2020; Bovin et al., 2019; Held et al., 2019; Meis et al., 2022; Williston & Vogt, 2022). Such nonjudgment and mutual respect are also believed to explain the proven effectiveness of animal assisted treatments for veterans, such as equine therapy (Gehrke et al., 2018).

Negative alterations in social cognitions and behaviors are symptomatic of PTSD (American Psychiatric Association, 2022). These reactions to psychological or spiritual trauma often manifest in trust issues, social isolation, toxic angry outbursts, and broken relationships (Sullivan & Starnino, 2019). In addition, military veterans are more likely to report a history of adverse childhood experiences (cumulative trauma) and those exposed to combat are at the greatest risk of any group for development of PTSD (Battaglia et al., 2019; Castro-Vale et al., 2020; Morgan et al., 2022). These veterans are also at greater risk of experiencing moral injury, either as perpetrators or witnesses, further exasperating feelings of estrangement, guilt, shame, and suicidal behavior (Ames et al., 2019; Edwards et al., 2022; Levi-Belz et al, 2022). This risk increases with deployment frequency, length, and participation in killing (Stanley & Larsen, 2018). The downstream impact of such extreme adversity involves the entire family through emotional withdrawal, changes in parenting, loss of intimacy, and long-term effects (e.g., child-parentification, transgenerational trauma) (Bauer et al., 2021; Decker et al., 2020; McGaw et al., 2019; Zhang et al., 2021). Even veterans who have not experienced combat often struggle with reintegrating into civilian life, finding a new identity outside of the military, and adjusting to changing work and relationship expectations (Mitchell et al., 2020; Roberts

& Warner, 2018). The combination of all this often leads to feelings of alienation and loss of connection with oneself and others.

Although social support has long been understood as foundational to mental health, the perceived gulf between military and civilians and the proven stigma surrounding PTSD undermines veterans' ability to receive it (Caldwell & Lauderdale, 2021; Hundt et al., 2019; Krzemieniecki & Gabriel, 2021; Mittal et al., 2013). Nevertheless, the Veterans Administration's National Center for PTSD (2019) continues to focus on medication and three specific therapies (i.e., prolonged exposure (PE), cognitive processing (CPT), and eye movement desensitization and reprocessing (EMDR)) for mainstream treatment of trauma. Despite high dropout rates for trauma treatment (military and civilian), knowing these EBPs are even less effective for veterans than for civilians, and that these EBPs are ineffective against moral injury treatment, recommendations have not changed (Borges et al., 2019; Edwards-Stewart et al., 2021; Evans et al., 2021; Hundt et al., 2020). Additionally, factors such as self-blame, distortions in social and temporal comparative thinking, and low social support are key predictors of PTSD and moral injury development (Chesnut et al., 2020; Dillon et al., 2020; Hoppen et al., 2020).

Group Interventions

While various studies have considered group work and the peer-to-peer interaction it affords, these interventions have nearly always been incorporated as an adjunct to individual therapy with the assumption that individual therapy is the primary agent of change. Recent examples of experimental group programs for veterans have included group cognitive behavioral therapy, chaplain/psychologist co-facilitated moral

injury groups, brief group experiential therapy, group compassion focused therapy, group couples therapy for PTSD, and even group exercise and yoga, all of which have demonstrated small to large effects in symptom reduction and improving quality of life (Beck et al., 2021; Cenkner et al., 2021; Cowden et al., 2021; Davis et al., 2020; Fredman et al., 2020; Grodin et al., 2021; Hall et al., 2020). In exit interviews for both these and spiritual wound-focused group programs (e.g., REBOOT Combat Recovery), veteran participants have consistently attributed their greatest improvements to the community they felt with other veterans in the program (Knobloch et al., 2021; Starnino et al., 2019a; Starnino et al., 2019b).

This growing body of evidence indicates peer support may be more fundamental to symptom reduction than previously believed, especially for veterans (Zalta et al., 2019). Drapalski et al. (2021) found that a group intervention that addressed self-stigma and focused on peer-to-peer encouragement improved veteran willingness to remain in treatment. Similarly, Hernandez-Tejada and Sánchez-Carracedo (2021) found that veterans who dropped out of individual treatment and were subsequently assigned peer support were significantly more likely to return to and complete treatment. Lee (2019) demonstrated that Korean firefighters with higher perceived social support experienced lower rumination and PTSD symptoms, and Jackson et al. (2019) found that group stress inoculation training for veterans diagnosed with both combat-related PTSD and traumatic brain injury (TBI) resulted in significantly reduced PTSD and depression symptoms, improved stress tolerance, and improved social and occupational functioning. These findings are consistent with those of Levi et al. (2017) who found that cofacilitated combat-related trauma-focused group therapy (TFGT) (which combines aspects of

prolonged exposure, cognitive processing, and art therapy) significantly reduced PTSD and depression symptoms in 80 Israeli combat veterans. Most recently Buttanshaw et al. (2022) found that social support made the biggest difference in how well people with PTSD coped with government-imposed lockdowns due to COVID. The common factor in all of these studies is not the specific modalities involved, which varied, but the purposeful interaction between individuals with similar experiences.

Biblical Research

Scripture and biblical studies support this conclusion. God states that it is not good for man to be alone (Genesis 2:18 NIV). Proverbs 27:17 (NIV) informs that "iron sharpens iron" and Christ assures us that where two or more are gathered He is there (Matthew 18:20). Additionally, the Christian values of self-sacrifice and uplifting one another are endemic to military culture (John 15:13 NIV). Positive spirituality and religious coping have long been associated with reduced PTSD symptoms (Smith-MacDonald et al., 2017). There is also preliminary evidence that a spiritually based combined approach that addresses PTSD and moral injury simultaneously may be more effective in reducing symptoms (Ames et al., 2021). Christian explanations of suffering and forgiveness are particularly well-suited for giving meaning to traumatic experiences, and REBOOT groups that deliberately focus on Christian interpretations of combat trauma have consistently shown to reduce PTSD and anxiety symptoms in veterans (Knobloch et al, 2019; Knobloch et al., 2022; McMartin & Hall, 2022). Christian couples dealing with combat trauma have also credited their shared spiritual bonds with strengthening their relational bonds and helping them deal more effectively with the aftermath of war (Sherman et al., 2018). Although these studies are limited in number,

they demonstrate clear benefits of a Christian outlook and the importance of community with other Believers for reducing the negative impacts of trauma.

Recent studies of military veterans reiterate what has long been known that social support is a common factor in building resilience for protection against adversity and limiting mental health problems (Hill et al., 2021). Numerous studies of group interventions have demonstrated medium to large effect sizes for reducing trauma symptoms, yet the effects have traditionally been attributed to the interventions. It appears there is now enough evidence to consider that the effect may result instead primarily from the interaction with perceived peers. The current study tested that idea by examining veteran self-report of symptoms and well-being before and after participation in professional-led, open groups for military veterans living with the aftermath of trauma, and those participants' reflections on the group experience.

Problem Statement

Military combat veterans are at greatest risk of any group for the development of PTSD (Battaglia et al., 2019; Castro-Vale et al., 2020; Morgan et al., 2022). Due to the nature of the military mission, they are also at significantly higher risk of exposure to morally injurious events (e.g., killing) and development of moral injury (Ames et al., 2019; Edwards et al., 2022; Levi-Belz et al., 2022). Although large scale combat operations such as those in Afghanistan and Iraq have temporarily paused, the suicide rate among military veterans has changed little. The Center for Disease Control and Prevention (2022) reports that the veteran suicide rate is 52.3% higher than that of nonveterans, with veterans (who comprise only 1% of the overall population) accounting

for 13.7% of all adult suicides in the U.S. Despite these facts, a large percentage of veterans in need of mental health services continue to go untreated for multiple reasons including denial of problems, fear of stigma, long waits for appointments, and lack of trust in psychotherapy, civilians, or the government (Aikins et al., 2020; Bovin et al., 2019; Meis et al., 2022).

The three evidence-based practices with the most supporting evidence are significantly less effective for military veterans than for civilians and have proven ineffective for the treatment of moral injury (Borges et al., 2019; Evans et al., 2021). While a variety of group programs have demonstrated small to large effect sizes for reducing trauma symptoms, group work remains secondary to individual therapy as a primary treatment (Ames et al., 2021; Beck et al., 2021; Cenkner et al., 2021; Cowden et al., 2021; Davis et al., 2020; Fredman et al., 2020; Grodin et al., 2021; Hall et al., 2020; Knobloch et al., 2019). Veterans of group programs have consistently identified their preference for working with other veterans with similar experiences and report regaining a sense of camaraderie they had not felt since leaving the military (Knobloch et al., 2021; Starnino et al., 2019a; Starnino et al., 2019b). Such social support has long been considered fundamental to promoting recovery from and building resilience against adversity (Caldwell & Lauderdale, 2021; Hundt et al., 2019; Krzemieniecki & Gabriel, 2021; Mittal et al., 2013). Given that traditional treatments are less than optimally effective with the veteran population and the veterans themselves have identified peer group interaction as the most important factor for their improvement, it was worth considering these insights. No other cultural study would purport to understand a group's culture better than the members themselves, yet the insights of military veterans about

their own healing experiences had been ignored. Previous studies were researcher/intervention-centric rather than considering the more general treatment modality. While such studies are easier to conduct and control, they risk overlooking more fundamental factors such as the healing camaraderie identified by veterans. As far as the study author is aware, no other study examined the effectiveness of a non-manualized, open group design and how that compared to standard treatments for this population. The current study helped fill that gap in the literature by examining whether non-manualized group work with other veterans was empirically effective for reducing trauma symptoms (i.e., PTSD and moral injury) while improving overall quality of life for military veterans.

Purpose of the Study

This sequential mixed-methods study examined the relationship of participation in a non-manualized, open psychotherapy group, PTSD severity, and moral injury symptom severity in post-911 military veterans. Furthermore, how military veterans perceived that their group participation affected their overall quality of life was examined.

Research Questions and Hypotheses

Research Questions

RQ1: What is the change from baseline in self-reported PTSD symptom severity, as measured by the PTSD Checklist (PCL-5) (Caldas et al., 2020), following three months of participation in a professionally facilitated psychotherapy group for military veterans with PTSD and moral injury?

RQ 2: What is the change from baseline in self-reported moral injury symptom severity, as measured by the Moral Injury Symptoms Scale–Military Version–Short Form (MISS-M-SF) (Chesnut et al., 2022; Koenig et al., 2018), following 12 weeks of participation in a professionally-facilitated psychotherapy group for military veterans with PTSD and moral injury?

RQ 3: How do military veterans describe their group experience in the professionally facilitated psychotherapy group related to their overall quality of life?

Hypotheses

Hypothesis 1: It is predicted that self-reported PTSD symptom severity will be significantly reduced from baseline following the intervention.

Hypothesis 2: It is predicted that self-reported moral injury symptom severity will be significantly reduced from baseline following the intervention.

Assumptions and Limitations of the Study

The current study relied on a few key assumptions. First, because the study fundamentally pertained to the individual's perception of well-being, it was assumed self-report measures of symptoms were valid for this purpose and that participants would answer honestly. Second, the study period was sufficient to achieve significant improvement in symptoms, and even a temporary reduction in symptoms would benefit participants. Third, the director of the targeted Vet Center would agree to allow use of the planned groups at listed facilities, and it was assumed a formal agreement would be signed. If formal agreement was not received, the resultant reduction in study size would

have significantly limited statistical power of the mixed-methods study's quantitative portion, causing it to fall below acceptable thresholds. Although a formal agreement was initially signed, it was rescinded after a supplemental legal review, impeding my ability to achieve the desired number of participants.

The study also had important limitations. First, the nature of the study was to examine group efficacy specifically for the veteran population. This population, on average, is enculturated with a strong sense of cohesion and mutual support that may make military and former military members much more responsive to group interventions than other populations. Thus, results may not apply to non-veteran populations or those who do not embrace this aspect of military culture. Another limitation was the short duration of the study. Perceived social support tends to change over time, so any improvement during treatment may not continue once group participation was terminated. For this reason, a key task for the facilitators was helping group members learn to develop their own connections outside of the group to build lasting resilience. A final limitation was the experience and background of the group facilitators. The facilitators of the sample groups are all post-911 military veterans with experiences similar to the group members. While this helped to build initial rapport and gain trust, conventional wisdom informs us that an intervention should be applicable for any trained clinician. It is not unusual, however, for group members to have an easier time relating when the facilitator is from the same culture.

Theoretical Foundations of the Study

Systems theory teaches that maintaining a relationally based view, meaning making, strong belief system, connection, and shared emotional expression are among the key processes in building resilience in individuals and families in the face of adversity (Walsh, 2006). For many veterans, this idea of family expands to include other veterans. It is unsurprising then that high social support is a significant predictor of overall well-being following separation from the military, independent of demographic and trauma history (Vogt et al., 2020). Additionally, a meta-analysis by Cusack et al. (2019) demonstrated that group treatments that address broader aspects of well-being, beyond mere symptom reduction, lead to better long term general self-efficacy for this population. Given that various group approaches have been shown to be as efficacious as other active individual treatments for trauma in military veterans, greater emphasis on group work can improve overall outcomes for veterans (Schwartze et al., 2019).

Man's need for community and the support of others like him arises early in scripture and continues through Paul's teachings about supporting one another in the faith (Genesis 2:18; Colossians 3:16 NIV). Christ provided the example of service and humility, and He instructs us to maintain this mindset in our dealings with one another (Philippians 2:3-5 NIV). In doing so, we manifest the healing love of Christ as we come together in groups in mutual love and support for all (Matthew 18:20 NIV).

Definition of Terms

The following is a list of definitions of terms that were used in this study.

Posttraumatic Stress Disorder (PTSD) – PTSD was defined as receiving a score of 31 or higher on the PCL-5 or having met the diagnostic criteria for F43.10 as reported by competent authority (American Psychiatric Association, 2022; Caldas et al., 2020).

Moral Injury (MI) – MI was defined as having positively endorsed any of the first four items (≥5) on the MISS-M-SF (Chestnut et al., 2022; Koenig et al., 2018).

Significance of the Study

The current study's significance is the insight into the mechanism of change in group interventions it provides. Numerous group interventions with veteran populations have demonstrated similar efficacy and effect sizes. Although the changes have traditionally been attributed to the interventions, the similarity of results indicates the changes may instead be attributable to a common factor (e.g., peer social support). The study also provides greater insight into the expansion of group work as a primary means of treatment for military veterans. While there will always be a need for individual therapy for some patients, expanding the use of group work would make it possible for more veterans to access treatment sooner to reduce the types of reintegration difficulties which lead to veteran suicide and substance abuse.

Summary

Military combat veterans are at greatest risk of any group for the development of PTSD and are at significant risk of exposure to morally injurious events and development of moral injury (Ames et al., 2019; Battaglia et al., 2019; Castro-Vale et al., 2020; Edwards et al., 2022; Levi-Belz et al., 2022; Morgan et al., 2022). Although social

support has long been understood as foundational to mental health, the perceived gulf between military and civilians and the proven stigma surrounding PTSD undermines veterans' ability to receive it (Caldwell & Lauderdale, 2021; Hundt et al., 2019; Krzemieniecki & Gabriel, 2021; Mittal et al., 2013). A growing body of evidence indicates peer support may be more fundamental to trauma symptom reduction in veterans than previously believed (Zalta et al., 2019). The current sequential mixed-methods study examined the relationship between participation in non-manualized group psychotherapy, PTSD, and moral injury symptoms in a sample of post-911 and Vietnam military veterans. It further examined how military veterans perceived their group experience and its impact on overall quality of life. While the results may not be generalizable to non-veteran populations, the study provides greater insight into the mechanism of change in group work with this population and gives voice to the veterans concerning their trauma treatment.

CHAPTER 2: LITERATURE REVIEW

Overview

The recent extended wars in Afghanistan and Iraq have resulted in greater awareness of and sensitivity to the impact of military service on veterans, their families, and the healthcare system. The smaller all-volunteer force and resultant higher operational tempo, coupled with increased intensity of fighting on non-linear battlefields, and advances in evacuation and forward medical treatment have resulted in reduced allied fatalities and higher levels of survivors struggling with catastrophic injury and psychological trauma. These changes, although lifesaving, have left many veterans feeling isolated and disconnected from society upon returning home.

While PTSD and moral injury have become popular research topics, mainline treatment continues to focus on medication, cognitive processing therapy (CPT), prolonged exposure therapy (PE), and eye movement desensitization and reprocessing (EMDR) (Roberts & Warner, 2018). All of these have demonstrated poor adherence, diminished effectiveness against PTSD in veterans, and little efficacy against moral injury (Straud et al., 2019). Due in large part to having too few providers to treat the large number of veterans needing care, increased emphasis has been placed on group interventions to complement or replace individual treatment. As will be demonstrated below, the results of various group interventions are comparable to individual treatment and, like individual methods, demonstrate results similar to each other. There is now sufficient evidence to believe that social support derived from the group experience, not a specific intervention, may be the true agent of change in many of these programs. This chapter will review the unique nature of military culture that requires special

consideration, what military-related PTSD and moral injury are, and how they intertwine. It will then describe current individual and group treatments for these conditions and explain some of the most prevalent barriers to care for military veterans. The chapter will close with an argument for the current study which explored social support as a necessary primary agent of change in treating PTSD and moral injury for members of the military veteran culture.

Description of Search Strategy

A literature search was conducted using the advanced search function in the Jerry Falwell Library of Liberty University to access multiple databases simultaneously. Results were drawn from ProQuest, APA PsycNet, EBSCO, Ovid, SpringerLink, and the Wiley Online Library databases. Aside from government sources for official statistics (e.g., National Center for PTSD) and seminal works or those known by the author to convey military experience particularly eloquently, searches were limited to the past five years, and restricted to English-language peer-reviewed journal articles in psychology. Search terms included posttraumatic stress disorder or PTSD, moral injury, military veterans, social support, and treatment.

Biblical research was conducted via word study using the Holy Bible Online, New International Version (2011), focused on topics concerning warriors and the response to war (e.g., King David), self-sacrifice, service to one another, and the Gospel message of love, faithfulness, and fellowship. Version cross-references were conducted using the Bible Gateway (www.biblegateway.com) to allow comparison of multiple versions simultaneously.

Review of Literature

Military Culture and Enculturation

Since becoming an all-volunteer force in 1974, 1% of Americans have served in uniform (National Academy of Sciences, 2013). Unlike the low-level engagement following Vietnam from the mid-1970s through the 1980s, most military members serving after 9/11/2001 have deployed in support of war at least once, ranging from 56% of the Army (the largest service) to 84% of the Navy and Marine Corps (National Academy of Sciences, 2013). Although military veterans make up only a tiny fraction of the population, they are likely to experience a disproportionate share of lifetime trauma (Battaglia et al., 2019; Castro-Vale et al., 2020; Morgan et al., 2022).

Even before deployment, the military foments an exclusive culture that tends to endure in the veteran's identity even after he returns home (Shepherd et al., 2021). This change in identity from pre- to post-military service makes it difficult to reintegrate into society and many feel disconnected and alone in the civilian world. The widening gap in experience and understanding between veterans and the average citizen not only impacts veteran healthcare, but shapes how veterans experience daily life, their relationships, and how they interact with the world around them.

This struggle involves not only the veteran's interaction with others, but in how he sees himself. Mitchell et al. (2020) examined the role of identity in returning Afghanistan and Iraq military veterans (n = 244). All participants were in established adulthood or midlife, receiving services from the Veterans Health Administration, and reported at least "a little" difficulty with reintegration following return from deployment. Forty-nine percent of participants reported some form of identity disruption with 27%

reporting a loss of meaning or purpose following deployment. As one veteran explained, “There is nothing in civilian life that will ever be as fulfilling or important as what I did in the military.” Another 27% reported a loss of connection between their past, present, and future selves. “I try not living in the past but it’s hard to move on from something that you lived for the past 4 years.” Thirty-four percent reported some type of role disruption (e.g., parent, soldier, civilian), and 14% reported having a negative view of their new selves. “When I got home, I had to learn to be a dad. My daughter was born while I was gone and my wife and her were in a pretty good routine. So, I come in and get treated like some type of assistant who doesn’t know anything.” Another veteran confided, “I feel so pathetic right now. I was a strong person. . . I had respect, I had a life, I had friends… I feel like a bottom feeder right now.” These kinds of identity disruption were associated with greater reintegration difficulty, more severe PTSD symptoms, and lower life satisfaction (Mitchell et al., 2020). In other words, veterans already feel different than before entering the military. Deployment makes the differences in military and civilian experience even more acute and exacerbates the feelings of separateness and greater need for social support.

Even veterans who have not experienced combat often struggle with reintegration, adjusting to changing work and relationship expectations, and finding new identities outside the military (Roberts & Warner, 2018). Not surprisingly, Mitchell et al. (2020) found that social support for veterans endorsing identity disruption typically remained stable at best or declined over time, while those with strong senses of identity experienced gradual increases in support. It appears then that social support may be self-

fulfilling in that it can either aggravate and be diminished by dysfunction or increase with and bolster healthy readjustment.

The Military and Trauma

Many active military and veterans live with trauma related to or aggravated by military service, and most struggle in some way with reintegration into society (Shepherd et al., 2021; Vogt et al., 2021). As Tick (2005) explained in his seminal exposition of the soul's reaction to combat, a warrior experiences disconnection from loved ones, society, and himself. It is this disconnection that is inherent to adverse trauma response and in large part drives veteran suicide. Most veterans displaying PTSD symptoms also report exposure to morally injurious events, the combination of which results in self-blame, low self-esteem, and false guilt common among veterans with PTSD and moral injury (Williamson et al., 2020). Like PTSD, moral injury occurs frequently in war (e.g., as a result of killing other human beings or witnessing atrocities) making the two conditions nearly indistinguishable in combat veterans (Norman & Maguen, 2021).

These changes impact not only the veteran, but the entire family. McGaw et al. (2019) conducted a meta-analysis of literature pertaining to the experiences of family members living with a parent who has military-related PTSD. They considered the perspectives of the parent with military-related PTSD, the spouse or partner, and the children. Using the PRISMA protocol to scan existing qualitative studies involving military or veteran families and focused on military-related parental PTSD, they narrowed the initial pool of 2066 articles to 324 that passed triple co-screening. Eleven were chosen for full narrative review and thematic analysis. The following six primary themes emerged. First, "The absent parent" was characterized by the veteran feeling

disconnected, the partner feeling unsupported and burdened, and the children feeling a loss as the absent parent was not emotionally available. One veteran succinctly captured daily experiences overlooked in the diagnostic criteria, “I felt like I was watching my own life happen around me and I was just stuck…I wasn’t actually participating in my own life…I was not there for [my son] and I was just like a vacant shell”. Second, “Walking on eggshells” included the family as an emotional environment, differences in family dynamic based on whether the veteran was present, and a general atmosphere of fear and cautiousness. Third, “Still part of the family” was characterized as the veteran’s awareness of their dual role as parent/partner and problem, and the children’s sensitivity to how the veteran’s PTSD had impacted their own development and relationships with peers. Fourth, “Partner and children as caregivers” involved partners feeling as if they had another child to care for, and role reversal in children who felt responsible to care for their veteran parent(s). Fifth, “Making sense and understanding” was a consistent theme among both partners and children struggling to find meaning in the changes in the veteran and is a common theme in the treatment of PTSD. Finally, “long-term impacts on the family” included things such as vicarious trauma, intergenerational effects, over-identification of children with the veteran parent, and how access to service and support, if available, could relieve suffering for family members (McGaw et al., 2019).

Although focused solely on PTSD, the review demonstrated the significant impact military-related trauma has on the lives of not just veterans but the families with whom they live. It highlighted the need to understand better what it is to live with military trauma and the need to better address the relational aspects of the impact of trauma in treatment (McGaw et al., 2019).

PTSD in Veterans

Diagnosis of PTSD requires alignment with five symptom clusters: A) personally experiencing or witnessing trauma, B) intrusive thoughts, C) avoidance behaviors, D) negative alterations in cognition and mood, and E) hyperarousal persisting for at least one month (American Psychiatric Association, 2022). It is important to note these life-altering reactions to trauma are not simply psychological. Wang et al. (2022) found that brains of male combat veterans (n = 296; average age 56) showed advanced epigenetic aging compared to their nonveteran twins. Beyond the diagnostic criteria, PTSD manifests in devastating physiological changes (e.g., disruption of the cortisol cycle), psychological turmoil (e.g., guilt, shame), and spiritual questioning (Quinones et al., 2020; Smith-MacDonald et al., 2017). More generally, PTSD involves a fundamental loss of one's former sense of self and any previous understanding of and connection with others and one's place in the world (Lanius et al., 2020).

Officially F43.10 or F43.12 posttraumatic stress disorder (or PTSD, chronic) are common physiological responses to trauma that are believed to have estimated lifetime prevalence in the general population ranging from 3.9% to 8.1% (American Psychiatric Association, 2022). Among Iraq and Afghanistan military veterans, this prevalence jumps to 29.3% (Na et al., 2023). These veterans are also more likely to report a history of adverse childhood experiences (cumulative trauma) and those exposed to combat are at the greatest risk of any group for development of PTSD (Battaglia et al., 2019; Castro-Vale et al., 2020; Morgan et al., 2022).

As noted previously, PTSD leads the sufferer to doubt his fundamental understanding of the world. Hoppen et al. (2020) explored whether comparative thinking

could be used to better understand the experience of PTSD and improve treatment outcomes. They examined how existing literature defines the relationship between PTSD and social, temporal, and counterfactual comparative thinking. Of the original 533 articles identified using the PRISMA protocol, a total of 36 publications were used for full narrative analysis and 24 samples from 21 publications for the meta-analysis. Several studies found combat-veterans with PTSD consistently compared themselves negatively to others (social) and even to their past selves (temporal) while discounting their own progress. Meta-analysis also demonstrated a medium to large positive correlation, $r = .46$, $p < .001$, 95% CI [.40, .52], between PTSD and the frequency of counterfactual comparative thinking. Their findings indicated that social, temporal, and counterfactual comparative thinking (related to Cluster D) may at least partially cause and perpetuate PTSD symptoms (Hoppen et al., 2020). The study highlighted the need for greater understanding of veterans' experiences of living with PTSD in order to improve treatment outcomes.

Moral Injury in Veterans

Although the focus of significant research in recent years, moral injury is not yet a codified diagnosis, so defining it is more nebulous than PTSD. Morally Injurious Events (MIE) or Potentially Morally Injurious Events (PMIE) are situations, often in high-stakes environments, in which an individual perceives he or someone else has violated a critical moral value in some way or has otherwise been betrayed. Such violations can result in intense emotional, spiritual, and social suffering known as moral pain (Battaglia et al., 2019; Currier et al., 2017; Fani et al., 2021). When this moral pain becomes overwhelming, it results in moral injury leaving the individual feeling spiritually

wounded (Litz et al., 2009; Richardson et al., 2020). Moral injury often manifests as internalized negativity (e.g., self-loathing, disconnection) making it difficult for clinicians to detect and easy to misdiagnose. Other symptoms include but are not limited to strong moral emotions such as intense guilt and shame, hopelessness, self-condemnation, social withdrawal and isolation (perhaps to protect society from the self), loss of trust in the self and others, and confusing existential conflict (Currier et al., 2017; Hansen et al., 2021). Due to the realities of war, veterans are at elevated risk of experiencing moral injury, either as perpetrators or witnesses, further exasperating any feelings of estrangement, guilt, shame, and suicidal behavior (Ames et al., 2019; Edwards et al., 2022; Levi-Belz et al., 2022).

Although some have postulated that moral injury is socially constructed, it is observable in differentiated neural responses in important ways (Hollis et al., 2023; Sun et al., 2019). First, spontaneous fluctuations in amplitude of low frequency fluctuation (ALFF) in the left inferior parietal lobule (L-IPL) of veterans who endorsed moral injury differed from those who endorsed PTSD alone. Second, functional connectivity between the L-IPL and bilateral precuneus was positively correlated with PTSD symptoms but negatively correlated with moral injury scores (Sun et al., 2019). Thus, despite their similarities, PTSD and moral injury comprise two distinct but closely related and often comorbid conditions in military veterans (Smigelsky et al., 2018). Additionally, Chestnut et al. (2020) found that severity of moral injury was directly correlated with social well-being, further indicating the need to consider social support in the treatment of moral injury.

Exposure to adverse childhood experiences (ACE) is the single biggest risk factor for development of moral injury in adulthood overall, and there is some evidence that persons who join the military, particularly young soldiers, are more likely to have had higher ACE exposure in childhood (Battaglia et al., 2019). This is more important to the current discussion than it may first appear. At the height of the Afghan and Iraq wars, half (49.8%) of the active force deployed were under age 30, averaged roughly two deployments each, and had been in the war zone a total of 18 months (National Academy of Sciences, 2013). It was already known that the risk of moral injury generally increases with greater deployment frequency and length (Stanley & Larsen, 2018). Hansen et al. (2021) found that being deployed for just 361 days (a full six months less than the average serviceman has deployed) or being under age 25 were the largest predictors of PMIE exposure in the theater of operations. In other words, the greatest risks were compounded so that those temporally closest to childhood adversity made up the majority of the force and spent more than enough time deployed to make moral injury likely. To make matters worse, combat in the post-911 era has been more intense than it was in previous conflicts, and participation in killing has been shown to be another major factor in predicting moral injury (Stanley & Larsen, 2018).

These predictors are evident in the veterans themselves. As many as two-thirds of combat veterans reported exposure to morally injurious events (Williamson et al., 2019; Hansen et al., 2021). These included seeing women and children suffer and not being able to help them (48.4%), difficulty telling friend from foe (43.6%), and feeling unable to act due to overly restrictive rules of engagement (ROE) (35.4%) (Hansen et al., 2021). The rate of military sexual trauma (MST) is also horrendously high, and even young

mothers who did not deploy themselves reported elevated fear of letting their children play outside due to their spouses' stories of the "evil men do" (Bauer et al., 2021). As can be deduced from these examples, moral injury can result from personal transgressions, actions perpetrated by someone else (e.g., MST), or feeling deeply betrayed. A survey of Israeli combat veterans (n = 381) indicated 12.1% experienced symptoms of moral injury (self, other, or betrayal) (e.g., feelings of guilt) and 20.8% experienced betrayal-only (e.g., feelings of entrapment) (Zerach et al., 2021). While all of these can have long lasting effects on the human psyche, personal/self-directed and betrayal MI seem to be the most damaging. Self-directed moral injury occurs when one is the perpetrator of the moral violation either directly through one's own actions or indirectly through failing to stop a violation by others despite having the capacity to do so. Some reported examples include disrespecting dead bodies, mistreatment of civilians or prisoners, and complying with orders to defy ROE (Williamson et al., 2019). These types of transgressions breed the feeling of a "compromised self" that worsens and perpetuates feelings of shame in already traumatized individuals and often manifests as chronic physical pain (Morgan & Aldington, 2022). Betrayal injuries occur when an important trust is broken (e.g., being let down by society or those in power such as how Vietnam vets were mistreated upon return to the United States).

Internalized guilt, shame, and low self-worth (schema: "I'm 'bad'") from childhood emotional abuse are often reactivated in adulthood (Battaglia et al., 2019). Particularly among military veterans, moral injury puts the sufferer at greater risk of homelessness, suicide attempts, and history of arrests (Edwards et al., 2022). The morally injured are also more likely to struggle with depression, feel a sense of entrapment,

socially isolate, and be less willing to forgive themselves or others (Levi-Belz et al., 2022, Zerach et al., 2021).

Comorbid PTSD and MI in Military Veterans

Military-related PTSD and moral injury impact every aspect of a veteran's life. Reactions to psychological or spiritual trauma often manifest in trust issues, social isolation, toxic angry outbursts, and broken relationships (Sullivan & Starnino, 2019). As shown, the impact of extreme adversity involves the entire family through emotional withdrawal, changes in parenting, loss of intimacy, and long-term effects (e.g., child-parentification, transgenerational trauma) (Bauer et al., 2021; Decker et al., 2020; McGaw et al., 2019; Zhang et al., 2021). Additionally, self-blame, distortions in social and temporal comparative thinking, and low social support are all key predictors of PTSD and moral injury development (Chesnut et al., 2020; Dillon et al., 2020; Hoppen et al., 2020).

Battaglia et al. (2019) looked specifically at the interconnections between moral injury, childhood ACE exposure, and PTSD at intake to inpatient treatment for a group of Canadian Armed Forces veterans (n = 33). The correlational study found that, when adjusted for age and gender, moral injury exposure scale (MIES) betrayal subscores were significantly correlated with the avoidance (r_s = .366, p = .043) and negative cognitions and mood (r_s = .376, p = .037) subscales for PTSD. Similarly, emotional abuse and neglect scores from the ACE-Q were even more strongly significantly associated with the MIES total score (r_{bs} = .500, p = .006) as well as the sub-scores for betrayal (r_{bs} = .451, p = .022) and transgressions (r_{bs} = .429, p = .016) (Battaglia et al., 2019). Childhood emotional abuse and neglect fuel moral injury which, in turn, leads to increasingly

negative moral emotions like guilt and shame, low self-worth, and inability to feel positive emotions in those with comorbid PTSD. In a related study, Currier et al. (2019) found that the link between moral injury and PTSD severity was particularly strong for self-directed moral injury among military veterans. The combined impact can even have transgenerational effects as Nillni et al. (2020) found that comorbid moral injury and PTSD increased the risk of adverse pregnancy outcomes among female veterans.

In summary, moral injury appears to have a "kindling effect" for trauma which increases the likelihood of experiencing future trauma (possibly due to unhealthy reactions to adversity), makes PTSD symptoms worse (accounting for at least 10% variance in PTSD severity), and fuels generally negative health outcomes (Fani et al., 2021; Williamson et al., 2018). Given how tightly intertwined PTSD and moral injury can be, it is little wonder that researchers and clinicians who work with both have begun to call for addressing the two conditions together, particularly for military veterans (Drescher et al., 2018).

Current Evidence-based Practices for PTSD and MI

VA-approved Treatments

The most recent treatment guidelines from the Veterans Administration (2017) continue to focus on medication and individual, manualized trauma-focused psychotherapy (most prominently prolonged exposure (PE), cognitive processing therapy (CPT), and eye movement desensitization and reprocessing (EMDR)) as the mainstream treatment for trauma. These guidelines do not mention moral injury at all and come closest to addressing it in their discussion of combat and operational stress reaction (COSR), the "military analog of acute stress reaction," which the VA claims "is not a

DSM diagnosis" (Department of Veterans Affairs, 2017, p. 6). For comorbid PTSD and moral injury, the National Center for PTSD defaults to PE and CPT as the only evidenced based treatments, but it acknowledges the potential of limited "experimental programs" including group Acceptance and Commitment Therapy (gACT) (now increasingly common in civilian practice) and a handful of unproven programs (i.e., Adaptive Disclosure, Impact of Killing, Guilt Reduction, and group Building Spiritual Strength) (Norman & Maguen, 2021). The recommended pharmaceutical treatments include either selective serotonin reuptake inhibitors (SSRIs) (e.g., sertraline (Zoloft), paroxetine (Paxil), fluoxetine (Prozac)) and a particular serotonin norepinephrine reuptake inhibitor (SNRI) (venlafaxine (Effexor)), all of which have failed to lower the elevated rate of veteran suicide (Jeffreys, 2021).

In their review of a large cohort (n = 20,848) of military veterans receiving either PE or CPT from the VA, Grau et al. (2022) found no difference in outcomes between the two therapies. Fewer than half the sample showed significant improvement (at least 15-point reduction) in symptom severity as measured by the PCL-5, and only half completed treatment. Similarly, in a meta-analysis of 19 studies concerning veterans (n = 2,905) receiving exposure therapy (either PE or EMDR), McLean et al. (2022) found no difference in efficacy between PE and EMDR, no difference in efficacy between these and other trauma-focused treatments, and only a small to negligible benefit of these over non-trauma-focused therapies. In both studies, a large effect benefit to treatment over no treatment/treatment as usual (TAU) was observed, indicating only that completing some sort of treatment seems to help (Grau et al., 2022; McLean et al., 2022). Prior to these studies, Litz et al. (2019) examined the results of three randomized controlled trials of the

VA's manualized trauma-focused cognitive behavioral therapies (TF-CBT). The first compared CPT with Present-Centered Therapy (PCT), a non-TF supportive and problem-solving treatment. The second compared group CPT and individual CPT results, and the third compared standard PE delivered over 10 weeks, PCT over 10 weeks, and massed PE delivered in an intensive two-week format. Results demonstrated patient improvement rates of only 31-39% for war-related trauma compared to 83% improvement rate for comparable civilian trials. What's more, outcomes were associated more with patient factors, specifically lower baseline scores ($\beta = .33$, $p < .01$), higher ratings of treatment credibility ($\beta = -.22$, $p < .01$), and expectancy for change ($\beta = -.16$, $p < .01$), than with the treatments (Litz et al., 2019). Interestingly, when a combination of PE and medication was examined, researchers noted that PE plus placebo, sertraline hydrochloride alone, and PE plus sertraline hydrochloride were all similarly efficacious providing further evidence of the importance of patient factors (Steenkamp et al., 2020). Thus, while VA guidelines focus on a small subset of possible treatments, these treatments show no greater efficacy than other possible approaches.

As stated previously, approved treatments also do not address moral injury. Borges et al. (2020) examined the extent to which moral injury is addressed in mainline treatment at the VA. The study collected data from former patients ($n = 14$) with comorbid PTSD and moral injury who had completed either CPT, PE, or both through the VA. Participants completed a short battery of self-report measures then underwent 60–90-minute semi-structured interviews. Four themes were identified from the analysis: 1) moral injury was not discussed in therapy; 2) the therapeutic relationship can either promote or inhibit discussion of moral injury; 3) existing EBP had limited impact on

moral injury; and 4) moral injury remains difficult to cope with even one year after treatment (Borges et al., 2020). The results highlight the need to reconsider the best ways to address military trauma.

Non-standard Individual Treatments

Evans et al. (2021) speculated that the difference in outcomes between veterans and civilians may be due largely to the frequency, intensity, and heterogeneity of combat. Military veterans experience trauma more frequently and often more horrifically than their civilian counterparts, thus resulting in severe psychosocial-spiritual suffering. In one case study, an Iraq veteran with comorbid combat-related PTSD and moral injury received a full regimen of group CPT with no reduction of symptoms or improvement in his daily functioning. He was then referred for a three-week intensive outpatient program utilizing PE. Instead of focusing on one "most significant" traumatic event, program facilitators had him select three (i.e., the death of a friend in high school and two incidents in Iraq). While the veteran's symptoms did eventually lessen, he credited the researchers' non-manualized emphasis on values-based practices and his own resultant willingness to embrace moral pain as having a much greater positive impact on his daily functioning. As he noted, he learned "I can have hope. I have hurt, and I can also have hope" (Evans et al., 2021).

Other efforts to better address moral injury included a chaplain-led intervention which focused on each of 10 key symptoms of moral injury (guilt, shame, betrayal, moral concerns, loss of trust, loss of meaning, self-condemnation, difficulty forgiving, religious struggles, and loss of religious faith) (Ames et al., 2021). Individuals met with a chaplain trained in the intervention for 12 sessions of 50-minutes each. While only two case

studies have been published so far, participants experienced a 34-55% reduction in PTSD symptom severity and a 19-25% reduction in moral injury symptoms (as measured by PCL-5 and MISS-M-SF scores respectively) (Ames et al., 2021). These results are similar to those from standard VA-approved treatments concerning PTSD and significantly better (compared to no improvement) concerning moral injury.

Barriers to Care

One major obstacle to care is patient dropout which ranges from 25-48% for trauma-focused therapies compared with 12% for present-centered treatment (PCT) (Steenkamp et al., 2020). Edwards-Stewart et al. (2021) conducted a meta-analysis to examine treatment dropout rates for both military veterans and civilians. Twenty-six studies covering a total of 2,984 participants were selected. Multi-variate meta-analysis indicated an aggregate dropout rate of 24.3%, 95% CI [18.8%, 30.0%]. Rates by treatment type were 27.1% for trauma-focused treatments, 16.1% for non–trauma-focused treatments, and 6.8% for waitlist groups. While trauma-focused groups were at greater risk of dropout than non-trauma-focused groups (RR=1.60), military patients in trauma-focused treatments showed only a slightly higher risk of dropout than their civilian counterparts, 18.3%, 95% CI [14.8%, 21.8%]. Trauma-focused approaches can be triggering and extremely emotionally painful, leading many to end treatment prematurely when buried emotional wounds are re-opened (Edwards-Stewart et al., 2021). This is often exacerbated by civilian providers not understanding or adjusting treatment to the veteran's needs, leaving the veteran worse off than he was before he began treatment (Meis et al., 2022).

The perceived stigma of PTSD is another barrier that prevents many veterans from seeking mental health care (Krzemieniecki & Gabriel, 2021). As with treatment dropout, this is made worse by the real gap between military veteran and civilian lived experience. College students (n = 262) were presented separate videos of both a male and a female veteran presenting with PTSD. Participants were most likely to blame the veteran for his or her PTSD and considered the male veteran a particularly dangerous and frightening individual who should be forced into treatment (Caldwell & Lauderdale, 2021). While this effect was mitigated for students who were personally familiar with at least one veteran, it indicates that the stigma first studied by Mittal et al. (2013) and the social gaps perceived by many veterans continue today. The findings highlight the importance of connecting veterans in need of treatment with trustworthy others who they feel "get it".

How a diagnosis is presented can also make a difference in a veteran's willingness to accept help. Hundt et al. (2019) examined whether receipt of a PTSD diagnosis has a greater impact on treatment initiation than on longer term retention in care. Military veterans diagnosed with PTSD (n = 50) underwent half-hour to hour-long semi-structured telephonic interviews concerning their decisions to seek treatment and the assessment process. Participants reported a mix of positive, neutral, and negative reactions leading to a gradual acceptance of their diagnosis. Common positive reactions included a sense of validation of their own perceptions, hope, and proactivity (e.g., "now that the problem is known something can be done about it"). Neutral reactions included confusion, uncertainty, and acceptance. Negative reactions included shock, denial, and fear of being stigmatized (Hundt et al., 2019). The study demonstrated that how a

diagnosis of PTSD is communicated can have a significant impact on a veteran's willingness to seek treatment and emphasized once again the need for greater consideration of the veteran's perspective even in the diagnosis delivery stage.

Other barriers to treatment include some veterans' reluctance to admit they need treatment, doubt it will really help, or lack of trust in the VA or outside providers (Aikins et al., 2019). Some veterans fear being diagnosed may lead to unwanted consequences (e.g., ineligibility to own firearms or hold certain jobs), misunderstand how mental health treatment works, lack information about available resources, or harbor their own negative beliefs about people who seek help (Bovin et al., 2019; Williston & Vogt, 2022). Veterans with moral injury often fear others will find out what they did or feel they are "monsters" undeserving of support (Held et al., 2019). Other challenges include poor therapeutic alliance between provider and patient and lack of support between sessions. "That's why it was hard to switch from talking all about it and then sort of, the hour's up and then you've got to try and get on with normal life" (Ashwick et al., 2019). García (2020) has made a case for more directly asking military veterans and other victims of war what is important to and works for them to help them recover. When asked directly what helps, veterans themselves emphasized the importance of opening up to other veterans, especially when making meaning of their experiences (Held et al., 2019).

Group Interventions for the Treatment of PTSD and MI

Several experimental group programs have demonstrated small to large effects in symptom reduction and improving quality of life for members of the military veteran population. Beck et al. (2021) found that group cognitive behavioral treatment (gCBT) was effective in significantly reducing avoidance, intrusive thoughts, negative alterations

in mood/cognition, and hyperarousal symptoms (all $p < .001$) for post-911 male veteran participants ($n = 84$). This effect was very large in reducing avoidance for those with severe initial symptoms (high PTSD: $p < .001$, $d = 1.31$). Again, positive expectancy significantly enhanced improvements to large effect particularly in mood/cognition (high Expectancy: $p < .001$, $d = 1.13$) (Beck et al., 2021). A small trial of a two-week, residential program of group experiential therapy (a type of role play in which group members act out significant life events) also showed promise. Participants were veterans ($n = 72$) diagnosed with PTSD, anxiety, or depression. At follow-up, 7 of 10 veterans initially presenting with military-related PTSD still met "recovered" criteria 6 months after completing treatment (Cowden et al., 2021). Although experimental, the program demonstrated the potential for group work to surpass the effectiveness of standard individual treatments.

Other group approaches have blended psychoeducation with psychotherapy to encourage group members to learn from and help each other, a dynamic not available in one-on-one approaches. Cenkner et al. (2021) tracked the progress of seven psychologist-chaplain co-facilitated 12-week moral injury small groups over a period of 35 months. Of the ($n = 40$) participants, 57.5% received no concurrent treatment outside the groups. At the sessions, group members were provided educational information about moral injury and explored topics such as moral emotions, moral values, moral dilemmas, and moral disengagement. Group members were also encouraged to share their stories and guided to integrate learned concepts into their self-understanding. Eighty percent of the sample completed nine or more sessions (considered successful treatment completion) despite actively talking about their trauma (Cenkner et al., 2021). This indicates better retention

than the 25-48% dropout rates reported for one-on-one trauma-focused treatments (Steenkamp et al., 2020). Additionally, results indicated medium effect size improvements in psychological health ($F(1, 25) = 13.20$, $\omega 2 = 0.08$), self-compassion ($F(1, 27) = 6.48$, $\omega 2 = 0.05$), and depression symptoms ($F(1, 29)=9.83$, $\omega 2 =0.07$). Although follow-ups were not yet available at the time the study was published, it would be interesting to see if gains from this small group program were retained months or years after treatment (Cenkner et al., 2021).

Group stress inoculation training (SIT) (another CBT/non-trauma focused approach) has also been effective in achieving moderate reductions in PTSD symptoms. Jackson et al. (2019) conducted 12 weekly (90 – 120 minutes per) group sessions of SIT for veterans diagnosed with PTSD and traumatic brain injury (TBI), incorporating heart rate variability (HRV) biofeedback to increase participants' awareness of their own physiological responses. The dropout rate for the program was 28%, better than most estimates for standard treatments, and the reductions for treatment completers in both PTSD ($t(46) = 4.53$, $p < .001$, $d = 0.67$) and depression ($t(46) = 4.63$, $p < .001$, $d = .67$) matched those for group CPT ($d = .60$). Participants also reported "very high" satisfaction with the program and perceived significant improvement in their abilities to manage stress, anxiety, and anger in different contexts, as well as to relax, concentrate, and engage in valued daily activities according to post-treatment Situational Adaptation to Stress Scale (SASS) scores ($t(46) = -8.63$, $p < .001$, $d = -1.26$) (Jackson et al., 2019). The study provides more evidence of the benefits of combining psychoeducation and skills training with peer interaction to treat trauma in the veteran population.

Much of the strong emotion related to trauma manifests as anger directed both inwardly and outwardly, particularly for this population trained in violence. Grodin et al. (2021) conducted a pilot study of group compassion focused therapy (gCFT), a co-facilitated (two psychologists), 12-session group program focused on improving compassion and anger management in veterans with PTSD. Of the original participants (n = 22), 64% attended at least 9 of the 12 sessions and completed pre- and post-treatment measures. Completers demonstrated significant medium effect size reductions in overall PTSD symptom severity ($B = -8.90$, $p < 0.01$, $d = 0.53$) and in fear of expressing compassion for self (e.g., "I feel that I don't deserve to be kind and forgiving towards myself") ($B = -9.53$, $p < 0.01$, $d = 0.60$). Although significant improvements were also noted in trait and internalized anger, the effect sizes were small. Thirteen of 16 completers rated the program as "a lot" or "extremely" relevant to PTSD treatment. The program achieved retention rates comparable to one-on-one trauma-focused therapies and similar efficacy in reducing trauma symptoms. Although the sample was too small to be conclusive, the researchers speculated that the improvements in emotion regulation may have been due to activation of the affiliative (parasympathetic) systems of group members fostering compassionate understanding (Grodin et al. 2021). These studies demonstrate again the ability of non-trauma-focused group approaches to reduce symptoms in military veterans.

Physically engaging groups have also led to improved retention and moderate symptom reduction. Hall et al. (2020) conducted a 12-week exercise pilot program for older veterans (> 60 years old) (n = 54) that incorporated cognitive behavioral strategies to focus on self-efficacy. Participants were assigned individualized exercise programs but

worked out at the same place and time. The program achieved an 89% retention (11% dropout) rate, far better than standard treatments. At treatment end, participants experienced moderate improvements compared to the control group in Cluster D symptoms (MD = - 2.92, (95% CI [- 6.1, 0.2], d = 0.61), depressive symptoms (MD = - 3.28 (95% CI [- 6.8, 0.3], d = 0.57) and sleep (MD = - 1.47, (95% CI [- 3.0, 0.5], d = 0.61), although only a small reduction in PTSD symptoms overall (MD = - 4.23, (95% CI [- 11.7, 3.3], d = 0.38) (Hall et al., 2020). Similarly, Davis et al. (2020) compared a 16-week, 90-minute per session, group holistic yoga program (HYP) (n = 108), based on Hatha yoga to reduce hyperarousal, to a wellness lifestyle program (WLP) (n = 101) (also 16-weeks, 90-minutes per session) that incorporated discussion of wellness topics as a group and 20 minutes of low-intensity walking. Participants were both veterans (90%) and civilians. While both programs seemed to help lessen symptom severity, HYP, resulted in significantly greater reductions in PCL-5 scores than the talk-focused WLP (MD = -6.1, 95% CI [-10.3, -1.8], p = 0.005, d = 0.41). The dropout rate for both was similar to other programs (32.1%) and at the 7-month follow-up, both retained similar symptom reductions (HYP worsened slightly while WLP improved slightly). The researchers speculated that it may be easier for participants to continue WLP on their own after the program ends (e.g., walking and talking with friends) than it is for HYP (Davis et al., 2020). The convergence of results at follow-up provides further evidence of the importance of supportive relationships for continued healing.

The unspoken implication of these studies is the need to regain a sense of self-efficacy and belonging among military veterans. A group approach allowing veterans to interact with peers who have faced similar challenges is one of the few ways to address

this need clinically. Military culture is unique and uniquely physical, war is unfathomable for someone who has not personally experienced it (like most clinicians and society), the perceived stigma of military related trauma has been empirically validated, and veterans are one of the smallest voluntary minorities in the country. As shown, peer-to-peer encouragement improves veteran willingness to remain in treatment and reduces self-stigma (Drapalski et al., 2021). Shaw et al. (2021) explored these social aspects of military culture by having veterans with PTSD (n = 80) choose between TAU (i.e., residential rehab) or banding together to help a fictional fellow "Veteran X" struggling with mental illness, addiction, poor physical health, homelessness, economic hardships, and family issues for their treatment. The "Veteran X" group experienced significantly more gains in wellness ($F(1, 78) = 4.47$, $p = .038$, $r = .23$), and greater reduction in symptoms ($F(1, 78) = 10.61$, $p = .001$, $r = .35$) than the TAU group (Shaw et al., 2021). The importance of addressing the unique characteristics of the veteran population is becoming increasingly difficult to ignore.

This growing body of evidence also indicates peer support may be more fundamental to symptom reduction than previously believed, especially for veterans (Zalta et al., 2019). Levi et al. (2017) found that cofacilitated combat-related trauma-focused group therapy (TFGT) (which combines aspects of prolonged exposure, cognitive processing, and art therapy) significantly reduced PTSD and depression symptoms in 80 Israeli combat veterans. Participants underwent 12 sessions of 90-150 minutes of a combination art therapy/group discussion. The treatment dropout rate was 12.5%, two-thirds (65.7%) of completers reported significant improvement in PTSD symptoms, and over half (53.5%) retained improvements at the six-month follow-up

(Levi et al., 2017). As has been demonstrated, whether trauma-focused or non-trauma-focused, psycho-educative or skills training, based on physical activity or art, group approaches are more likely to keep veterans engaged in treatment through completion, reduce symptom severity as well as current trauma treatments, and improve perceived self-efficacy among veterans.

REBOOT Combat Recovery is an example of a program designed to combine these facts with Christian teachings about war and trauma. Knobloch et al. (2020) conducted semi-structured interviews with 40 graduates of REBOOT, a popular spiritually based, peer-led psychoeducation program for combat veterans struggling with PTSD and moral injury. Although officially non-denominational, REBOOT uses Biblical examples to educate participants on PTSD, moral injury, and recovery, and encourage fellowship amongst participants. While quantitative studies had previously validated the efficacy of the program for reducing anxiety ($t(253) = 8.92$, $p < .001$, $d = 0.53$) and depressive symptoms ($t(253) = 8.58$, $p < .001$, $d = 0.51$), the researchers wanted to capture reactions to it and reasons for its success in the veterans' own words (Knobloch et al., 2019). The veterans consistently identified peer fellowship, the program's focus on spiritual aspects of trauma, and addressing the roots of distress as the main reasons for its effectiveness (Knobloch et al., 2020). A small pilot ($n = 24$) of Search for Meaning (SFM), a similar 8-week program designed to address the spiritual wounds of war obtained similar results ($t(23) = 2.54$, $p = 0.02$ (two-tailed), $MD_{PCL\text{-}5} = -7.42$ [95%CI (1.37, 13.46)], $d = 0.62$). When asked what they liked best about the program, the veterans' most common answers alluded to being able to talk openly with other veterans (Starnino et al., 2019a). A qualitative follow-up study of SFM provided this realization

from a veteran participant: “You’re not the lone wolf out there alone by yourself, thinking these things, there’s other people just like me that have the same, same thoughts…I wasn’t the only one traumatized by events, other people were traumatized also” (Starnino et al., 2019b). The results of these studies indicate that veterans credit these programs, which simultaneously target PTSD and moral injury, with their own healing to things other than what traditional treatments address.

Social Support as a Key to Wellness

As Waldinger (2015) reflected on interim results of the longitudinal Harvard Quality of Life Project (the longest running study of human development ever conducted), “A good life is built on good relationships.” This complements Zalta’s et al. (2021) finding that social support was the single biggest moderator of PTSD severity, and that negative social support had an even greater effect size in making PTSD worse. Zalta and colleagues conducted a meta-analysis of 139 studies with 145 independent cross-sectional effect sizes involving over 62,803 participants and 37 studies with 38 independent longitudinal effect sizes representing 25,792 individuals, to examine the relationship between social support and PTSD severity in trauma-exposed, non-clinical adults. Analysis revealed a near medium overall effect size (r_{cross} = -.27; 95% CI [-.30, -.24]; r_{long} = -.25; 95% CI [-.28, -.21]) with a high degree of heterogeneity (cross-sectional I^2 = 91.6, longitudinal I^2 = 86.5). Interestingly, both cross-sectional and longitudinal results showed a more profound effect for repeated personal trauma (e.g., combat, interpersonal violence) than generalized trauma (e.g., natural disaster) and military veterans showed higher effect sizes than civilians (Zalta et al., 2021).

Olson et al. (2021) examined the role of social support from the opposite direction, i.e., the role social anhedonia impacts diversity of one's support network. Social anhedonia is a reduced ability to experience pleasure and reward from social interactions. The study sample consisted of 101 adults comparing trauma-exposed individuals with chronic PTSD (N = 41) and without (N = 23) (TENC or trauma-exposed, no condition) to a non-trauma-exposed control group (N = 37) (HC). Researchers administered the Revised Social Anhedonia Scale (RSAS), Social Network Index (SNI), and Beck Depression Inventory (BDI-II) then compared the groups using between-groups analysis of variance and least-significant difference post hoc tests as appropriate. The PTSD group demonstrated significantly more social anhedonia, $F(2, 98) = 17.61$, $p < .001$, $\eta_p^2 = .264$, smaller social networks, $F(2, 98) = 4.94$, $p = .009$, $\eta_p^2 = .092$, and fewer embedded networks, $F(2, 98) = 5.18$, $p = .007$, $\eta_p^2 = .096$, than either the TENC or HC groups. Additionally, the TENC group showed significantly more social anhedonia than the HC group demonstrating a link between social anhedonia and trauma exposure even without PTSD. The social groups of trauma-exposed individuals also showed significantly less diversity than the control group. The researchers concluded that trauma resulted in more anhedonia and less social support which resulted in greater trauma symptoms (Olson et al., 2021). Social support has also proven to have a significant buffering effect for suicidality arising from moral injury (Kelley et al., 2019). In a study of wounded combat veterans reporting moral injury (n = 189), greater social support led to a weaker association between other-directed moral injury and suicidality (low support $\beta = .44$, 95% CI [0.20, 0.75], average support $\beta = .27$, 95% CI [0.11, 0.46]). With high levels of social support, the association became nonsignificant, $\beta = .10$, 95% CI [- 0.13,

0.29] (Kelley et al., 2019). It seems clear that social support mitigates the impact of both PTSD and moral injury, with positive support leading to reduced symptoms, and lack of support making symptoms worse.

This need for felt social connection extends to the therapy room where the conduct of psychology is inherently an interaction between psychologist and client (Jackson, 2016). van Nieuw Amerongen-Meeuse et al. (2021) showed that a generally similar outlook between provider and patient enhanced the effect of treatment overall, regardless of whether that outlook was secular or religious. One patient summarized it succinctly, "they [the therapist] do not need to talk about it, but you know it is present." Other studies have shown this to be the case for other high-risk populations. Buttanshaw et al. (2022) found that social support made the biggest difference in how well people with PTSD coped with government-imposed lockdowns due to COVID, and Lee (2019) found that Korean firefighters with higher perceived social support experienced lower rumination and PTSD symptoms.

This need may be more acute for military veterans who, as a whole, struggle with reintegration into society and feel separate from the civilian population. Hernandez-Tejada and Sánchez-Carracedo (2021) found that veterans who dropped out of individual treatment and were subsequently assigned peer support were significantly more likely than those who did not receive peer support to return to and complete treatment. Clinicians who conduct equine therapy have even credited the nonjudgment, mutual respect, and consideration their veteran patients share with equine partners to explain the proven effectiveness of animal assisted therapies (Gehrke et al., 2018). This felt

connection with key healing figures (e.g., therapist, peer group members, horses) is critical to treatment success.

Biblical Foundations of the Study

Scripture is the ultimate source of truth as seen in James 3:17 (NIV), “But the wisdom that comes from heaven is first of all pure; then peace-loving, considerate, submissive, full of mercy and good fruit, impartial and sincere”. From scripture, we know that man was created for relationship, and like Adam, needs the companionship of other human beings, “It is not good for man to be alone” (Genesis 2:18 NIV). This need can be acute for military veterans who already feel separated from society. Although war is necessary, it is difficult to understand and, as seen in the high rates of PTSD and moral injury, inherently distressing for the warriors who wage it (Matthew 24:6-7; Ecclesiastes 3:8; Ecclesiastes 11:5 NIV). Due to man’s fallen nature, a warrior left to his own devices is prone to doing whatever he feels will relieve that distress (Romans 3:23 NIV). Adaptive choices lead him closer to God, maladaptive choices (like the shame, isolation, and avoidance behaviors of PTSD and MI) lead him farther away (Smith & Lapsansky, 2021). Understanding this, scripture warns believers to “Trust in the Lord with all your heart and lean not on your own understanding” (Proverbs 3:5 NIV).

When Israel defeated the Midianites, the commanders spared the enemy women and children yet when they returned home, Moses was furious and ordered the returning warriors to slaughter the women and boys (Numbers 31: 1-18 NIV). He then bars the warriors from the camp for a week, describing in detail the rituals they must perform to cleanse themselves of the violence they had committed (Numbers 31: 19-24 NIV). The

warriors needed time to process all that transpired, to purge themselves and their belongings of the carnage, and make themselves once again presentable to the Lord. The warriors did this with one another as only they and God could understand what they had endured. Later Elijah isolates in a cave, hopeless and afraid for the killing he has done. It is only when the Lord comes to him, reassuring him that he is not alone and that 7,000 others in Israel continue to stand against Baal, that he finds the courage to rejoin his people (1 Kings 19: 3-18 NIV). Warriors depend on one another and need to know that they are not alone in their struggles if they are to have any hope of resuming their rightful place in society.

Christ knew firsthand the anger and grief shared by many warriors, as evidenced by His overturning tables in the temple and crying over His friend Lazarus' death (John 2:13-17; John 11:33-35 NIV). He encouraged His followers to gather in small groups to support one another in the faith, "For where two or three gather in my name, there am I with them" (Matthew 18:20 NIV). Paul later reinforced this call for mutual support, entreating believers to stir up one another to love and good works (Hebrews 10:19-25). Together, like-minded fellows, are more likely to keep one another on the path, "As iron sharpens iron, so one person sharpens another" (Proverbs 27:17 NIV).

These truths are directive, "A new command I give you: Love one another. As I have loved you, so you must love one another" (John 13:34 NIV). Love is demonstrated in the act of service and compassion for the marginalized (Matthew 25:31-46 NIV). Love as action, therefore, is mandatory for Christians, "You see that a person is considered righteous by what they do and not by faith alone" (James 2:24 NIV). Again, in his letter

to the Romans Paul wrote, “So then, let us therefore make every effort to do what leads to peace and to mutual edification” (Romans 14:19 NIV).

Christian psychologists accept *Makarios* as being and doing well while recognizing that tribulations and obstacles are part of life (Johnson, 2010). Whether they are believers or not, veterans understand this implicitly - life is hard, but it goes on. In his research to explain divine experiences following trauma, Marks (2021) was forced to admit that the brain seems predisposed to subjective paranormal experiences (SPE). Although no one knows the will of God, this predisposition may be an indication of the soul’s longing for connection. Such longing, although inherent, can leave an individual vulnerable to exploitation and further trauma. John recognized this vulnerability and warned believers to watch out for false prophets (1 John 4:1 NIV). Christ taught His followers to be discerning and consider the outcome of help offered. “By their fruit you will recognize them… A good tree cannot bear bad fruit, and a bad tree cannot bear good fruit” (Matthew 7:16-18; Luke 6:43, 45 NIV). Research indicates that traditional (one-on-one) trauma-focused treatments have often led veterans to terminate prematurely, leaving many worse off than before (seemingly bad fruit). In contrast, numerous group approaches have achieved much better retention rates and participants have credited their willingness to complete treatment to the connection they felt with other group members (seemingly good fruit). Taken together, it follows that group work may help fulfill God’s intent for reconnection with Him and our fellow man.

Summary

Military veterans comprise a unique population in terms of cultural identity, their experience of trauma, and their treatment needs. Even non-combat veterans struggle with reintegration and combat veterans are at the greatest risk of any group for the development of both PTSD and moral injury. While the two conditions are distinct, there is considerable overlap between them in the veteran population making it necessary to address both in treatment simultaneously. Current treatments endorsed by the VA center on trauma-focused, one-on-one approaches that result in moderate reductions in PTSD severity for completers but with nearly 50% dropout rates and no effect on moral injury. Pharmaceutical treatments are also often encouraged in conjunction with psychotherapy despite showing no significant advantage over placebo. The re-opening of emotional wounds is a major barrier to treatment, along with poor therapeutic alignment, the stigma of military-related PTSD, shame over perceived moral transgressions, and lack of trust in a broken system. In contrast, numerous group approaches have also demonstrated moderate reductions in PTSD severity along with simultaneous reductions in moral injury symptoms, improved self-efficacy, and retention rates as high as 88%. These programs typically combine psychoeducation with story sharing, discussion, and group activities (e.g., art, exercise). Notably, those that directly addressed spiritual aspects, even if not focused on PTSD, reduced PTSD severity as well as trauma-focused programs. Most significantly, for each of the group interventions considered that asked participants what helped most, participants credited the connection they experienced with fellow veterans as the main reason for the effectiveness of the programs. These findings are predicted by scripture in its call for mankind to be in relationship with God and one another to help each other stay on path and strengthen one another in the faith.

CHAPTER 3: RESEARCH METHOD

Overview

This chapter describes the research questions and hypothesis for the quantitative portion of the current study. It describes the design of the sequential mixed methods design and provides the nature of the intervention examined (i.e., unstructured group work for a sample of military veterans). It describes the participants and recruitment for the study, the procedure followed and measures used, and data analysis methodology with rationale for the quantitative analysis and use of the Moustakas approach for qualitative thematic analysis. This chapter closes with an overview of the delimitations, assumptions, and limitations of any findings resulting from this preliminary study.

Research Questions and Hypotheses

Research Questions

RQ1: What is the change from baseline in self-reported PTSD symptom severity, as measured by the PTSD Checklist (PCL-5) (Caldas et al., 2020), following three months of participation in a professionally facilitated psychotherapy group for military veterans with PTSD and moral injury?

RQ 2: What is the change from baseline in self-reported moral injury symptom severity, as measured by the Moral Injury Symptoms Scale–Military Version–Short Form (MISS-M-SF) (Chesnut et al., 2022; Koenig et al., 2018), following three months of participation in a professionally-facilitated psychotherapy group for military veterans with PTSD and moral injury?

RQ 3: How do military veterans describe their group experience in the professionally facilitated psychotherapy group as it relates to their overall quality of life?

Hypotheses

Hypothesis 1: The null hypothesis is that participation in group work for veterans will result in no change in PTSD symptom severity. It is predicted that self-reported PTSD symptom severity will be significantly reduced from baseline following the intervention.

H_{0PTSD}: $\mu_{PTSD\,0} \leq \mu_{PTSD\,1}$

H_{aPTSD}: $\mu_{PTSD\,0} > \mu_{PTSD\,1}$

Hypothesis 2: The null hypothesis is that participation in group work for veterans will result in no change in MI symptom severity. It is predicted that self-reported MI symptom severity will be significantly reduced from baseline following the intervention.

H_{0MI}: $\mu_{MI0} \leq \mu_{MI1}$

H_{aMI}: $\mu_{MI0} > \mu_{MI1}$

Research Design

The current study used a sequential mixed-method design. Volunteer participants underwent 12 weeks of a group psychotherapy intervention targeting PTSD and moral injury symptoms in military veterans with comorbid PTSD and moral injury. Participants self-selected into a group and there was no control group. Measures were completed for PTSD and MI symptom severity at the beginning and end of the study to determine any change in symptom severity. At the end of the 12 weeks, participants underwent individual semi-structured interviews concerning their impressions of the group

experience and what they found most helpful or unhelpful from the intervention leading to a change in their symptom severity. The duration of the data collection period was similar to studies used to validate other one-on-one and group interventions for PTSD and moral injury. Previous studies focused on detailed, manualized interventions to reduce PTSD and MI severity all achieved similar moderate reductions in symptom severity. The less structured nature of the intervention in this study shifted the focus to the group interaction making it possible to assess whether the social support afforded by the group was a more significant contributor to change than a specific manualized treatment. The quantitative portion of the design allowed me to measure any change in symptom severity over time, while the qualitative portion captured veteran perspectives on their treatment and to what they attributed their change in symptoms.

Participants

This was a convenience sample of volunteers who attended one of five pre-existing weekly psychotherapy groups (1 – Lemoyne, 1 – Harrisburg, 3 – York). Participants were military veterans living in the south-central Pennsylvania region who report posttraumatic stress and moral injury symptoms. The sample consisted of Vietnam and post-911 military veterans (n = 34) between the ages of 30-78 who possessed at least a high school diploma or GED.

Study Procedures

Recruitment

The study was announced at ongoing veteran PTSD meetings with flyers identifying the purpose and general procedure of the study including researcher contact information for individuals to confidentially agree to the study. Volunteers completed a consent form (see Appendix A) and simple demographic and health questionnaire to ensure suitability for the study.

Data Collection

Group and training participation was measured using attendance logs for each session. Each participant was assigned a randomly generated 3-digit identifier and the identifier was used in the experimental record to protect the individual's privacy. Before participating in the study, potential participants signed a consent form (see Appendix A). All participants completed a brief demographic questionnaire, the PCL-5, and the MISS-M-SF at the start of the first session. The PCL-5 and MISS-M-SF were administered again at week 12.

At the end of the 12-week data collection period, 30–60-minute semi-structured interviews were scheduled with willing participants to collect their impressions of their group experience and its impact on overall quality of life. A majority of participants declined to be video recorded; therefor detailed notes were used to capture the data in lieu of video recording. These notes were verbatim to the fullest extent possible and verified for accuracy with each participant prior to final analysis. Transcripts were marked with the record identifier described above and stored in a HIPAA compliant secure online storage system. When necessary, follow-up interviews were scheduled with willing participants to expand on identified themes or clarify key points.

Instrumentation and Measurement

Posttraumatic Stress Checklist (PCL-5)

PTSD severity was measured using the posttraumatic stress checklist (PCL-5) (see Appendix C). The PCL-5 was administered at the beginning of the first weekly session and again at week 12. The PCL-5 is one of the most widely used measures of PTSD symptom severity for both clinical and laboratory samples (Caldas et al., 2020). The 20-item self-report measure uses a 5-point Likert scale in which respondents rate how much they have been bothered by each item in the past month from "not at all" (0) to "extremely" (4). Scoring is further divided into four subscales: Re-experiencing (items 1-5, max score 20), Avoidance (items 6-7, max score 8), Negative alterations in cognitions and mood (items 8-14, max score 28), and Alterations in arousal and reactivity (items 15-20, max score 24). The PCL-5 has demonstrated good internal consistency ($\alpha = .96$), test–retest reliability ($r = .84$), and convergent and discriminant validity across all symptom clusters and has been used with diverse populations, including veterans (Bovin et al., 2016; Caldas et al., 2020).

Moral Injury Symptoms Scale–Military Version–Short Form (MISS-M-SF)

Moral Injury severity was measured using the Moral Injury Symptoms Scale–Military Version–Short Form (MISS-M-SF) (see Appendix D) (Chesnut et al., 2022; Koenig et al., 2018a). As with the PCL-5, the MISS-M-SF was administered at the beginning of the first weekly session and again at week 12. The MISS-M-SF is designed to measure the psychological and spiritual symptoms of moral injury in military veterans (Koenig et al., 2018a; Koenig et al., 2018b). The 10-item self-report measure uses a 10-

point Likert scale for items 1-9 in which respondents rate how much they endorse each item from “strongly disagree” (1) to “strongly agree” (10). Item 10 addresses religious faith and participants respond from “strengthened a lot” (1) to “weakened a lot” (10). Four of the 10 items (items 5, 6, 7 and 10) are reverse scored. The MISS-M-SF has demonstrated good reliability ($\alpha = 0.73$, 95% CI [0.69–0.76]), test–retest reliability (ICC = 0.87, 95% CI [0.79–0.92]), construct validity as a measure of moral injury symptom severity and convergent validity ($r = 0.54$) with PTSD symptom severity (Chesnut et al., 2022; Koenig et al., 2018b).

Operationalization of Variables

Variable One: PTSD Symptom Severity – Variable One was a dependent variable and a continuous-ratio variable measured by the total score of the PCL-5 for each individual.

Variable Two: Moral Injury Severity – Variable Two was a dependent variable and a continuous-ratio variable that was measured by the total score of the MISS-M-SF for each individual.

Variable Three: Attendance – Variable Three was the independent variable and a nominal discrete value based on whether the individual attended at least 8 of 12 sessions of the group intervention.

Data Analysis

To determine appropriate target sample size, an a priori power analysis was conducted using G*Power 3.9.1.7. Given projected values $1 – \beta = .80$, $\alpha = .05$ with moderate effect size $f = 0.25$, a sample size of 55 should have been sufficient to achieve

reliable data as designed. Once collected, data was checked for accuracy and completeness. Descriptive statistics were calculated using Statistics and Probability for Social Sciences (SPSS), version 26. Z-scores were calculated to check for extreme univariate outliers and the data tested for skewness, kurtosis, normalcy, predictability, and sphericity. The collected data failed to meet the criteria for a repeated measures analysis of variance (RM-ANOVA), so a paired sample t-test (i.e., the same people were tested before and after the intervention) was conducted for each dependent variable instead.

For the qualitative portion of the study, analysis of the interview transcripts followed Moustakas's modification of Van Kaam's method for phenomenological data analysis (Moustakas, 1994). This method begins with listing and preliminary grouping for every expression relevant to the phenomenon, followed by reducing and eliminating overlapping, repetitive, or vague expressions to identify invariants, clustering and thematizing the invariants, and validation of invariants and themes against the complete record of the participant. I served as master coder to code all interviews. I then constructed an individual textual description, an individual structural description, and finally a textual-structural description of the meaning and essence of the phenomenon for each participant incorporating the invariants and themes into the meanings and essences of the phenomenon described (Moustakas, 1994). This detailed approach was necessary to minimize coder bias given the close familiarity of the coders and the participant interviewees.

Delimitations, Assumptions, and Limitations

The proposed study was intended as a preliminary inquiry only and so was limited in duration with the study of long-term efficacy of group work left to subsequent studies. The sample was intentionally limited to military veterans due to the unique emphasis on camaraderie and self-sacrifice endemic to military and veteran culture. Unstructured group work recognizes and builds on this aspect of military training; thus findings may not generalize to other populations. The sample was also limited geographically due to my familiarity with the other group facilitators involved and experience working together to ensure similarity in the facilitation of the observed groups. Finally, analysis was limited to total scores for PTSD and moral injury severity, both for brevity and because the unstructured nature of the intervention and complexity of human interaction make more in-depth analysis of such a limited sample of dubious significance.

Because the study fundamentally pertained to the individual's perception of well-being, it was assumed self-report measures of symptoms were valid for this purpose and that participants would answer honestly. It was further assumed that participation in the group experience provides a form of peer social engagement to the participants such that group participation serves as a proxy for social support. Although of short duration, the length of this preliminary study matches that of the studies used by the VA and other researchers to validate currently approved treatments. Based on that fact, it was assumed the duration of the study was of sufficient length to result in changes in severity of symptoms for at least most participants and to demonstrate efficacy of the approach. In consideration of the requirement to avoid causing harm, it was further assumed that even a temporary reduction in symptoms would benefit participants. It is important to note that the director of the targeted Vet Center agreed to allow use of the planned groups at listed

facilities; therefore, it was assumed that a formal agreement would be required by the Institutional Review Board (IRB). If formal agreement had not been forthcoming, the resultant reduction in study size would have significantly reduced the statistical power of the quantitative portion of the study. However, if that occurred, the study would have continued with increased emphasis on qualitative results.

As stated previously, this study was intended to focus on military veterans encultured in military values such as esprit de corps, service to others, and self-sacrifice. Thus, the results may not be applicable to non-veteran populations or veterans who do not embrace these aspects of military culture. It is important to note that the study was preliminary in nature and of short duration, so any conclusions drawn should be limited to guiding future research. Many participants are undergoing or have undergone other forms of treatment simultaneously, or have well-established support outside of the group. For others, the group was the foundation of their support base such that leaving the group would deprive them of any appreciable social support. As a result, facilitators often felt compelled to follow-up with departing group members to encourage reconnection, possibly skewing the results by increasing therapeutic interaction outside the group. A final limitation was the experience and background of the group facilitators. The facilitators of the sample groups were themselves post-911 military veterans with an established rapport with current group members. While it is not unusual for group members to prefer a facilitator from the same culture, the results of the study may not translate to facilitators without a firm understanding and appreciation for military values and culture.

Summary

The current study used a sequential mixed-methods design, with the qualitative data collected after the completion of quantitative data collection. It was predicted that the quantitative data would demonstrate that participation in group work (the independent variable) reduced PTSD and MI symptom severity scores (the dependent variables) over time based on the PCL-5 and MISS-M-SF self-report measures. Interviews were conducted at the end of the study, and thematic analysis was conducted to give voice to veteran participants as to what they felt led to any change in severity scores. This preliminary study examined a small sample size over a limited duration, and the intervention was designed to take advantage of unique characteristics of military culture to improve treatment outcomes for the veteran population. Although the results demonstrated effectiveness in reducing symptoms comparable to other treatment methods, they still may not be applicable to other populations.

CHAPTER 4: RESULTS

Overview

The purpose of the study was to examine the relationship between participation in a non-manualized, open psychotherapy group, PTSD severity, and moral injury symptom severity in military veterans. It also examined how the participants perceived their group participation impacted their overall quality of life. At the start of the first session, all participants completed a brief demographic, the PCL-5, and the MISS-M-SF to assess baseline symptom severity. They completed the PCL-5 and MISS-M-SF again at week 12. At the end of the 12-week period, 30-60 minute semi-structured interviews were conducted with individual participants to collect their impressions of the group experience and its impact on overall quality of life. I sought to answer three research questions. First, what was the change from baseline, if any, in self-reported PTSD symptom severity, as measured by the PCL-5, following the intervention? Second, what was the change from baseline, if any, in self-reported moral injury symptom severity, as measured by the MISS-M-SF, following the intervention? Lastly, how did participants perceive their participation in the professionally facilitated psychotherapy group impacted their overall quality of life?

Descriptive Results

The final sample consisted of military veterans, aged 30-78 years old (M = 61.0, SD = 16.4), representing all four military branches (Army 51.9%, Marines 18.5%, Air Force 14.8%, Navy 14.8%). Only the most recent deployment was recorded in the formal questionnaire and included Vietnam (50%), Operation Iraqi Freedom (18.5%), Operation Enduring Freedom in Afghanistan (11%), Operation Desert Shield/Desert Storm (11%),

unspecified support missions for the Global War on Terror (7.4%), and Operation Just Cause (1 individual). Most participants voluntarily reported experiencing two or more deployments during their time in uniform, often to multiple theaters. The average time since last deployment was 37.6 years overall (55.1 years for Vietnam-era veterans; 19.6 years for post-Vietnam-era veterans). The majority (63.0%) were currently married, (22.2%) were divorced and not currently remarried, (14.8%) were single and never married, and one individual was a widower and not remarried. Most of the married participants were on their second or subsequent marriage.

Study Findings

Posttraumatic Stress Disorder

RQ1: What is the change from baseline in self-reported PTSD symptom severity, as measured by the PTSD Checklist (PCL-5) (Caldas et al., 2020), following 12 weeks of participation in a professionally facilitated psychotherapy group for military veterans with PTSD and moral injury?

Of the 37 veterans who started the study, 30 participants met the criteria for likely PTSD; however, all reported having had PTSD prior to their first attendance at a veterans' group for PTSD. After correcting for missing data (three individuals were not present to complete the second measurement), the final sample size was n = 34. Data was checked for accuracy, normality, and outliers. Shapiro-Wilk testing and data plots confirmed the data met assumptions for a paired sample t-test (see Figures 1a, 1b, 1c, 1d).

Three outliers were identified, double checked for accuracy, and are addressed in the discussion.

Figure 1a

Tests for Normality – PTSD Change

	Shapiro-Wilk		
	Statistic	df	Sig.
PCL5CHG	.970	34	.450

Figure 1b

Histogram – PTSD Change

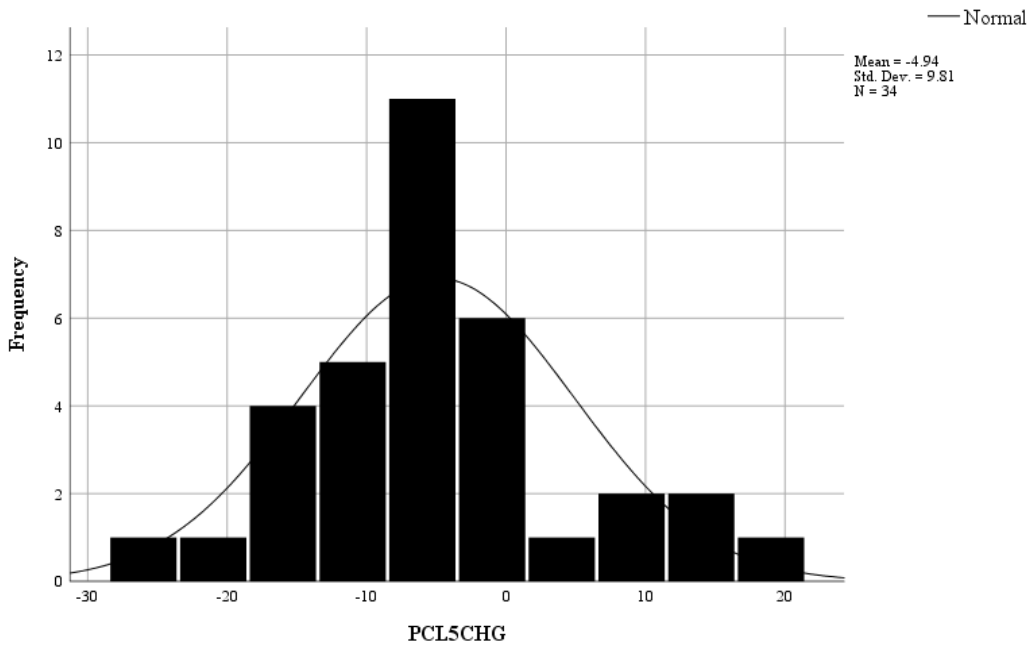


Figure 1c

Normal Q-Q Plot – PTSD Change

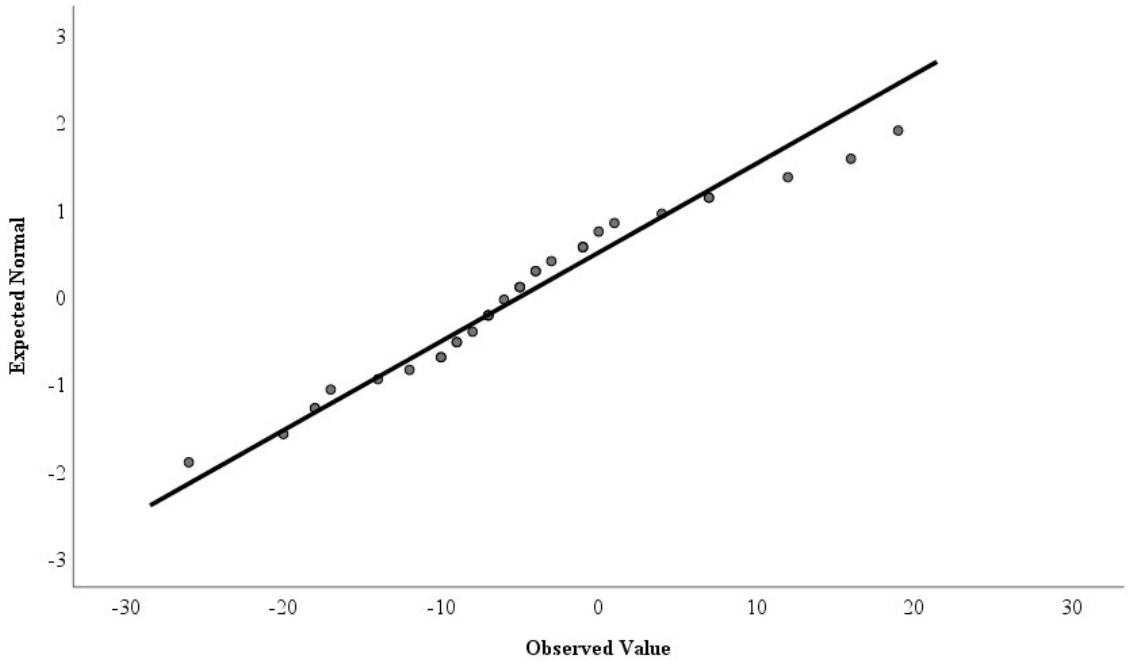
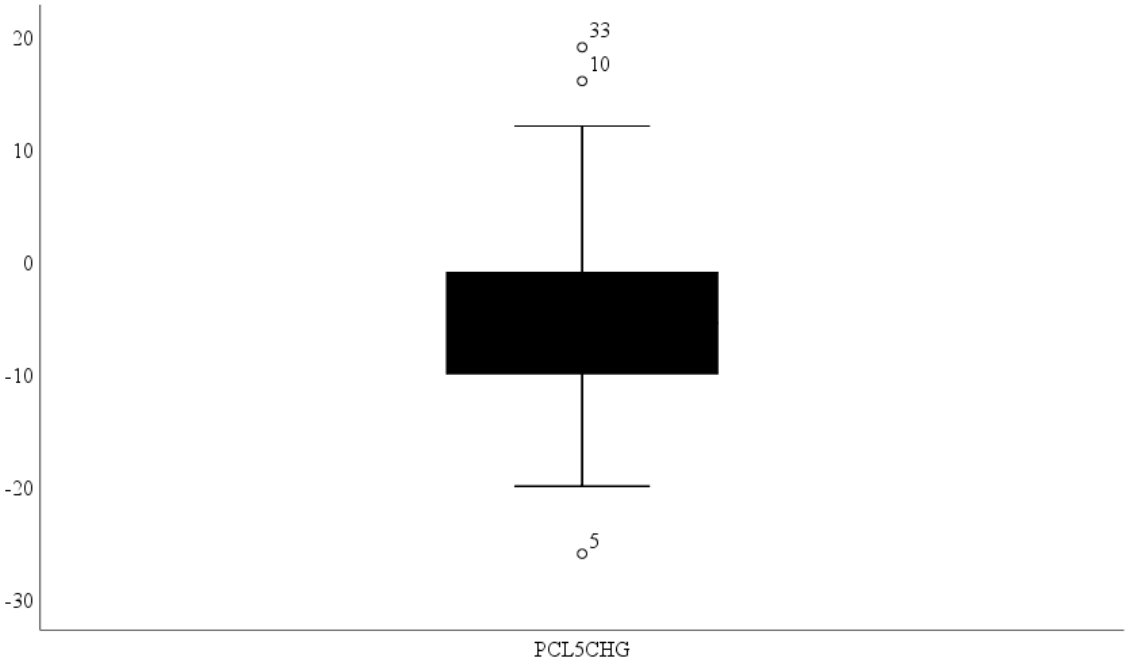


Figure 1d

Check for Outliers – PTSD Change



The average PCL-5 score for this sample was $M_{PTSD0} = 43.9$ ($SD_{PTSD0} = \pm 13.7$) (see Table 1), indicating mild - severe PTSD symptoms.

Table 1

Descriptive Statistics of the Sample

		PCL-5 T0	PCL-5 T1	PTSD Change	MISS-M-SF T0	MISS-M-SF T1	MI Change
N	Valid	37	34	34	34	34	31
	Missing	0	3	3	3	3	6
Mean		43.86	38.94	-4.94	52.15	44.35	-6.39
Std. Error of Mean		2.239	2.635	1.682	3.285	3.022	2.806
Median		46.00	38.00	-5.50	50.00	47.50	-4.00
Mode		30[a]	18[a]	-7	50	56	3
Std. Deviation		13.620	15.366	9.810	19.152	17.620	15.624
Variance		185.509	236.118	96.239	366.796	310.478	244.112
Range		51	63	45	85	64	61
Minimum		16	9	-26	10	6	-35
Maximum		67	72	19	95	70	26

Note: a. Multiple modes exist. The smallest value is shown.

Paired samples t-tests were conducted to compare pretest and post-test scores for the same participants to determine the effect of the intervention. The average score at the end of the 12-week period was $M_{PTSD1} = 38.9$ ($SD_{PTSD1} = \pm 15.4$), indicating mild to moderate symptom severity, with an average score change for individuals of $M_{PTSD\Delta} = -4.9$ ($SD_{PTSD\Delta} = \pm 9.8$). This reduction represents a clinically small but statistically

significant medium effect size for PTSD symptom severity, t (33) = -2.94, p <.003, Cohen's d = .50, 95% CI [-8.36, -1.52](2-tailed)(see Table 2).

Table 2

Paired Samples t-Tests

		PTSD PCL-5 T1 - PCL-5 T0	MI MISS-M-SF T1 - MISS-M-SF T0
Mean		-4.941	-6.387
Std. Deviation		9.810	15.624
Std. Error Mean		1.682	2.806
95% Confidence Interval	Lower	-8.364	-12.118
of the Difference	Upper	-1.518	-.656
T		-2.937	-2.276
Df		33	30
Sig. (2-tailed)		.006	.030

These reductions in PTSD were spread across all four symptom clusters (see Table 3).

Table 3

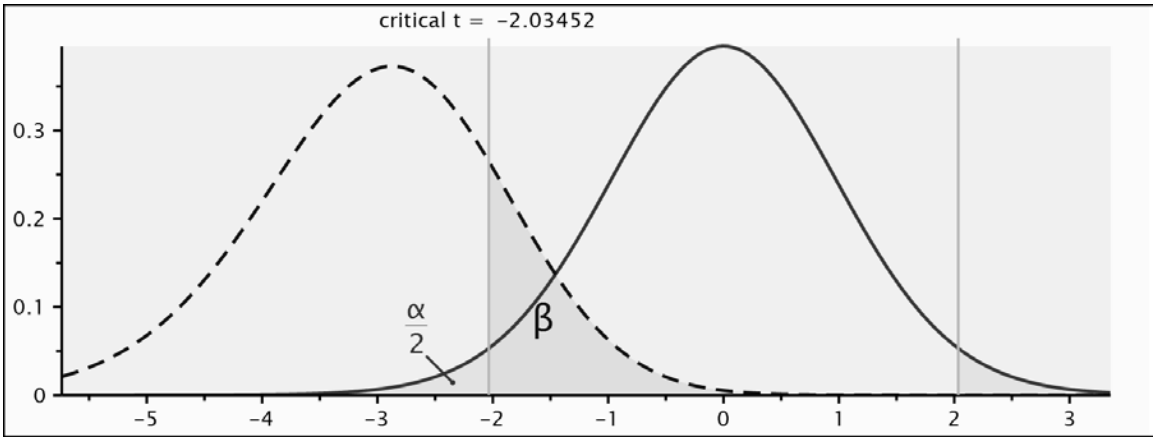
Relative Distribution of PTSD Changes by Symptom Cluster

	Symptom Cluster				
Change	B	C	D	E	Total
Maximum Possible	20	8	28	24	80
Achieved	-9.8	-4.6	-15.8	-13.8	
% Maximum Achieved	3.5	8.75	7.5	6.67	

A single sample 1-tailed t-test was then conducted on the change scores for verification. A test value of M_{PTSD0} = 43.9, yielded t(33) = -29.03, p = .000, 95%CI[-51.69, -45.99]. The null hypothesis is rejected in both matched pair and single sample cases. Post hoc analysis indicates that the statistical power of these findings met the desired design criteria (1 – β = 81.3%, α = .05) (see figure 2).

Figure 2

Post hoc Power Analysis – PTSD



Note. Difference in means, Matched pair t-test, 2-tailed. Input α = .05, n = 34, Calculated effect size dz = -0.5036697 based on M_{diff} = -4.941, SD_{diff} = 9.810. Output Noncentrality parameter δ = -2.9368738, t_{crit} = -2.0345153, df = 33, Achieved Power (1 – β err prob) = 0. 8133975.

However, the VA recommends using a difference of five (5) points, when assessing the clinical effectiveness of an intervention, as a reliable indicator of change beyond random chance (Weathers et al., 2013). Thus, it is uncertain whether the observed change is a reliable indicator of improvement. It is worth noting that one individual

reported no change and five indicated a reliable increase (PCL5Δ ≥ 5) in symptom severity (see Table 4).

Table 4

Raw Data - PTSD and MI Total Scores

Identifier	PCL-5 T0	PCL-5 T1	PCL-5 (T1-T0)	MISS-M-SF T0	MISS-M-SF T1	MISS-M-SF (T1-T0)
373	46	40	-6	95	70b	-25
437	41	34	-7	40	43	3
415	67b	60	-7	50	69	19**
384	30	21	-9	40	36	-4
425	49	23	-26	65	40	-25
101	61	65	4	60	59	-1
595	38	35	-3	-	42	
727	48	28	-20	50	46	-4
226	55	50	-5	60	31	-29
172	39	55	16**	50	69	19**
499	46	39	-7	50	48	-2
796	27	-	-	10a	-	-
907	38	34	-4	20	23	3
973	45	37	-8	60	25	-35
450	16a	9a	-7		6	
510	33	45	12**	40	42	2
733	55	45	-10	70	57	-13
496	48			80b		
957	34	33	-1	50	53	3
461	53	52	-1	50	58	8
732	65	72b	7**	90	56	-34
619	30	31	1	30	56	26**
991	28	18	-10	35	28	-7
272	25	20	-5		15	
375	63	49	-14	68	63	-5
774	56	63	7**	71	63	-8
401	33	28	-5	57	29	-28
571	56			40		
113	54	36	-18	52	27	-25
503	36	18	-18	46	49	3
363	37	25	-12	30	16	-14
370	57	48	-9	65	65	0*

Identifier	PCL-5 T0	PCL-5 T1	PCL-5 (T1-T0)	MISS-M-SF T0	MISS-M-SF T1	MISS-M-SF (T1-T0)
682	24	43	19**	40	50	10**
839	54	50	-4	75	57	-18
420	20	19	-1	23	14a	-9
328	57	57	0*	43	47	4
724	59	42	-17	68	56	-12

Note. * indicates no change. ** indicates a reliable increase in scores from T_0 to T_1. Letter a indicates minimum value, b indicates maximum value for statistical sample.

Moral Injury

RQ 2: What is the change from baseline in self-reported moral injury symptom severity, as measured by the Moral Injury Symptoms Scale–Military Version–Short Form (MISS-M-SF) (Chesnut et al., 2022; Koenig et al., 2018), following 12 weeks of participation in a professionally-facilitated psychotherapy group for military veterans with PTSD and moral injury?

Concerning moral injury, 34 of 37 individuals met the criteria for likely moral injury (positive endorsement of any question numbers 1–4 on the MISS-M-SF). After correcting for missing data (six participants failed to complete one or both MI measurements), the sample for MI was n = 31. Data was checked for accuracy, normality,

and outliers. Shapiro-Wilk testing and data plots confirmed the data met assumptions for a paired sample t-test (see Figures 3a, 3b, 3c, 3d).

Figure 3a

Tests for Normality – MI Change

	Shapiro-Wilk		
	Statistic	df	Sig.
MICHG	.969	31	.489

Figure 3b

Histogram – MI Change

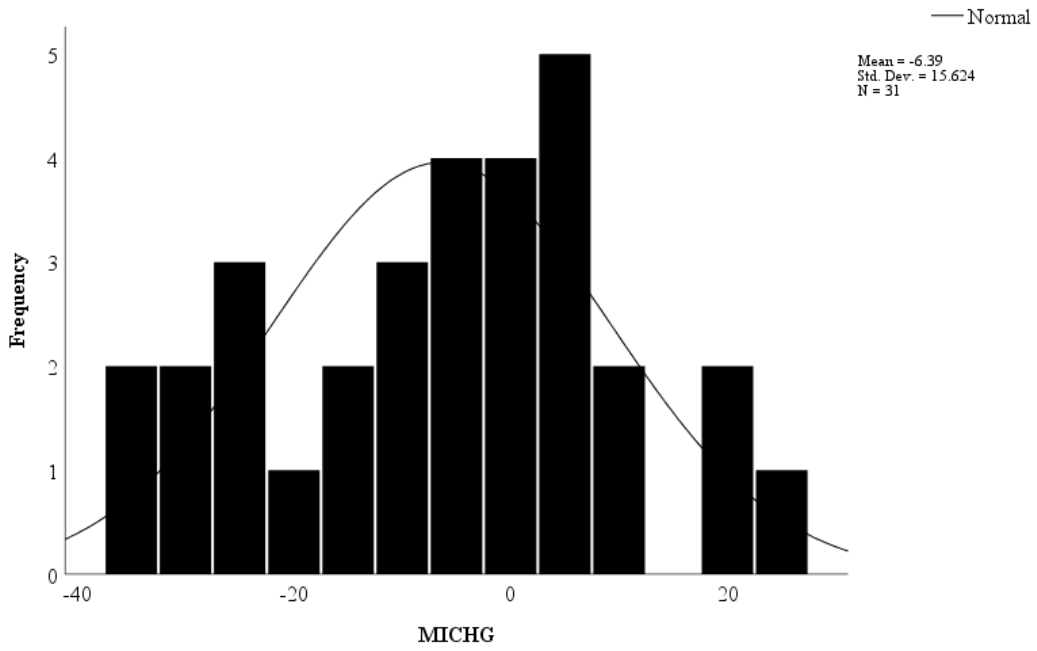


Figure 3c

Normal Q-Q Plot – MI Change

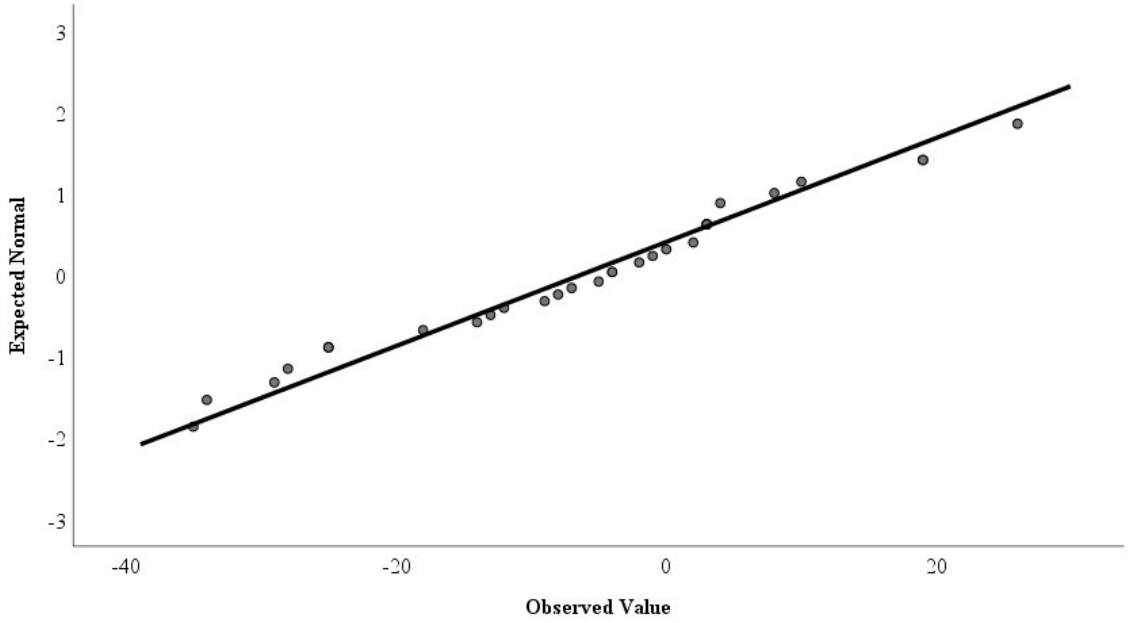
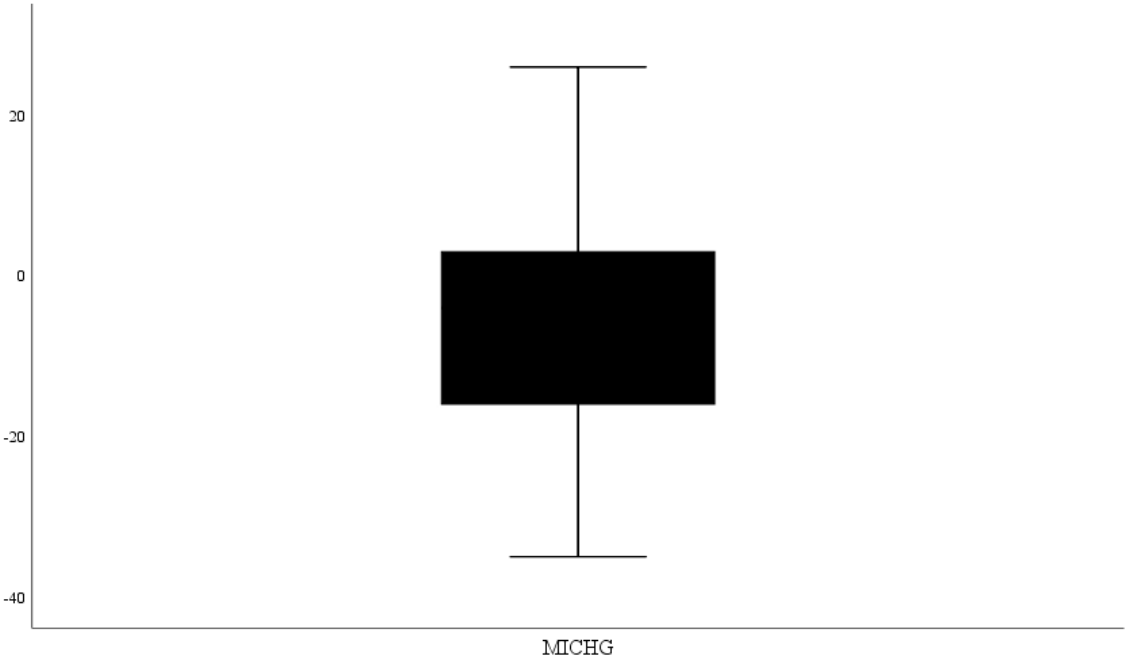


Figure 3d

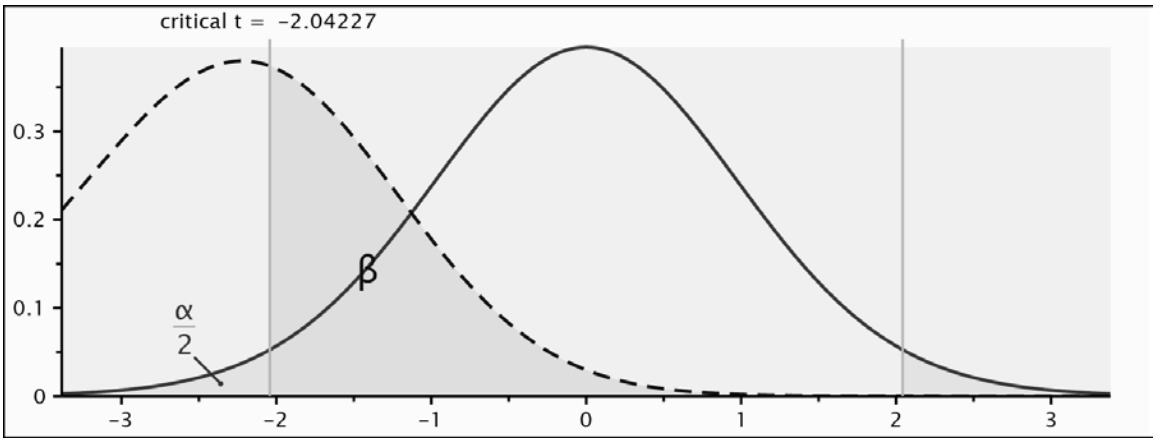
Check for Outliers – MI Change



The average total MI score at the start of the study for the sample was M_{MI0} = 53.0 (SD_{MI0} = ±17.9), indicating mild - severe moral injury symptoms. The average score at the end of the 12-week period was M_{MI1} = 46.6 (SD_{MI1} = ±16.1), with an average score reduction for individuals of $M_{MI\Delta}$ = - 6.4 ($SD_{MI\Delta}$ = ±15.6). This difference represents a small but statistically significant medium effect size for the reduction of MI symptom severity, *t* (30) = -2.28, *p* <.030, Cohen's D = .41, 95% CI [-12.12, -0.66](2-tailed)(see Table 2). Again, a single sample 1-tailed t-test was conducted on the change scores for verification. A test value of M_{MI0} = 53.0, yielded t(30) = -21.16, p = .000, 90%CI[-64.15, -54.62]. The null hypothesis is rejected in both matched pair and single sample cases. However, post hoc analysis indicates that the achieved statistical power of these findings failed to meet the desired design criteria (1 – β = 59.6%, α = .05) (see figure 4).

Figure 4

Post hoc Power Analysis – MI



Note. Difference in means, Matched pair t-test, 2-tailed. Input α = .05, n = 31, Calculated effect size dz = -0.4087942 based on M_{diff} = -6.387, SD_{diff} = 15.624. Output

Noncentrality parameter $\delta = -2.2760698$, $t_{crit} = -2.04227$, df = 30, Achieved Power (1 – β err prob) = 0.5959594.

Of the reduced sample, only one individual indicated no moral injury at the end of the study period, one reported no change, and four indicated a sizeable increase (MIΔ ≥ 10) in moral injury score (see Table 4). Two of the four reporting an increase also reported reliable increases in PTSD symptom severity.

Group Experience and Quality of Life

RQ 3: How do military veterans describe their group experience in the professionally facilitated psychotherapy group related to their overall quality of life?

Twenty-seven participants completed semi-structured one-one-one interviews (see Appendix B). Participants were allowed to respond in their own words and expound on each structured question as they desired. I took verbatim notes as much as possible and verified their accuracy with the participant before ending each interview. If a respondent recounted a sensitive personal story that was not relevant to the project, these portions were deleted from the record for the sake of privacy. Each response by each participant was reviewed for overall meaning and coded based on recurring key ideas (see Figure 5).

Figure 5

Sample Interview Field Notes

	Q1	Q2
Narrative reference	How do your PTSD and previous military experiences impact your daily life today? What bothers you most?	What helps you most in managing your PTSD symptoms day-to-day?

Air Force-OEF1	I had a hard time discerning stuff from addiction and stuff from the military. I think the addiction was a way to cope with loss of purpose and existential crisis that cropped up after leaving the military.	The groups help feeling I am not alone and help each other cope. Even though we had vastly different experiences, we support each other. Other things that help with anxiety and depression are pushing myself to do things I don't want to do all the time. Plus applying skills, we got from the military like perseverance and staying the course - having a little faith. I think I'm where I need to be. Some things work, some don't. It's a process.
Army-ODS2	My breathing and not being able to sleep - nightmares, waking up in fight or flight. When I started out it was total restless sleep. Now I can sometimes sleep 2-1/2 hours then I'm back up wide awake. For those 2-1/2 hours I am out. Someone could drag me, and I wouldn't know it. Other times I may not sleep for three days. Through the years I've learned a lot. For a while I didn't know I had a problem. In the very beginning at work, someone used to scare me all the time. I tried to warn them, but they kept doing it. The tenth time I snapped on them and my employer told me I needed to get help. I did so and have been able to keep going. Hypervigilance	I do a round robin. When one thing doesn't work, I go to another - go for a walk, do laundry, joke with friends. Now I'm trying to find what my limits are for oxygen due to my combat-related health condition. I'm trying to figure out how long a bottle [of oxygen] will last.

All responses for each question were then compared to each other for initial coding. These were tallied to determine recurring subthemes and frequencies. Related subthemes were then consolidated into 3 – 5 main themes per interview question. Given the free-flowing nature of the interviews, there was no fixed number or type of possible responses to any question; thus, reported numbers of responses are for relative ranking

only. For brevity, an extract of the coding matrix is shown in Figure 6. For the complete coding matrix, see Appendix E.

Figure 6

Coding Matrix Extract

Q1	Q1 Themes
addiction	HYPER-AROUSAL (25)
loss of purpose	Hypervigilance/always on edge (8)
sleep issues	- panic attacks (1)
hypervigilance	Anger/irritability (7)
vivid memories	Exaggerated startle response (4)
Anger	Known triggers
always on edge	- news (3)
lack of recognition	- crowds (1)
hypervigilance	- anniversaries (1)
exaggerated startle response	NEGATIVE CHANGES EMO/COG (21)
fly off the handle	False guilt/self-doubt/self-esteem issues (7)
Guilt	- loss of purpose (1)
hyperalertness	- lack of recognition (1)
avoidance	- depression (3)
self-esteem issues	Emotional stuffing (1)
triggers - news	Socialization
Anger	- social isolation (3)
exaggerated startle response	- difficulty connecting with others (2)
paranoia	- broken relationships (1)
exaggerated startle response	Trust issues (2)
Anger	INTRUSIVE THOUGHTS (7)
sleep issues	Sleep issues/bad dreams (3)
triggers - news	Intrusive thoughts/vivid memories/flashbacks (3)
medical issues	- rumination (1)
Guilt	AVOIDANCE BEHAVIORS (5)
social isolation	Drug/aclohol abuse was common prior to treatment (5)
rumination	OTHER
Trust	Persistent medical issues (2)
Anger	
guilt/self-doubt	
triggers - news	
difficulty connecting with others	

Q1	Q1 Themes
trust	
social isolation	
difficulty connecting with others	
broken relationship	
medical issues	
panic attacks	
flashbacks	
hypervigilance	
trigger - crowds	
exaggerated startle response	
anger	
guilt	
hypervigilance	
hypervigilance	
flashbacks	
nightmares	
irritability	
trigger - anniversaries	
social isolation	
guilt/self-doubt	
depression	
depression	
depression	
bottle up	
survivor's guilt	

Military Trauma Symptoms Today

Given the overlapping nature of PTSD and MI symptomology, responses were coded based on the five main symptom clusters for PTSD as defined in the DSM-5 TR (American Psychiatric Association, 2022). The most frequently recurring theme was *hyperarousal* (Cluster E symptoms) (25 responses). Hyperarousal included *hypervigilance*, *anger/irritability,* and *known triggers (e.g., news, crowds, anniversaries)*. The second most frequent theme was *negative changes in cognition and mood* (Cluster D symptoms) (21 responses). Negative changes in cognition and mood included *negative*

emotions such as guilt, self-doubt, and emotional numbing, and *socialization issues* such as social isolation, relationship difficulties, and trust issues. The third most frequent theme, *intrusive thoughts* (Cluster B symptoms) (7 responses) occurred far less often. Intrusive thoughts included sleep issues, nightmares, vivid memories, and flashbacks. A significant number of participants (5 responses) confided they had struggled with *alcohol and/or drug abuse* (related to Cluster C avoidance behaviors) in the past but were no longer in active addiction or abuse.

What Helps Most

Professional treatment (26 responses) was the most common theme. Subthemes included the study's professionally led *veterans' groups*, *individual psychotherapy*, and *psychoeducation,* i.e., knowledge and skills learned in treatment. Three of five respondents endorsing individual therapy specified that their provider was also a veteran. The remaining themes were *faith and family* (21 responses), *exercise/nature* (15 responses), and *other* (7 responses) which included humor, maintaining a routine, and medication.

Who Veterans Turn To

The most common theme was *other veterans* (33 responses), split evenly between *group*, a *veteran provider* (i.e., a mental health provider who is himself a veteran), and *service buddies*. The next most common theme was *family and friends* (17 responses), followed by *myself or God* (11 responses), and *other* (5 responses) which included

Alcoholics Anonymous, a trusted civilian medical doctor, or a non-veteran mental health provider.

Experiences with Other Veterans

Responses reported overwhelmingly *positive* (63 responses) experiences with other veterans since leaving the military. Responses included simple qualitative pronouncements (e.g., good, excellent) or cited specific points of connection including, commonality of experience and understanding, trustworthiness, acceptance, nonjudgment, and an overall preference for other veterans over non-veterans. Also included in this category were references to a positive veterans' group experience, felt camaraderie and brotherhood in group, the sharing, helping, and learning they experience in group, and the fact that their groups were led by veteran providers. One third of respondents confided that they initially distanced themselves from the military and other veterans when they first left the military but now attend veterans' groups regularly and regretted not having started earlier. Three respondents expressed negative views concerning the commitment of some other group members or negative personal reactions to what others share in group sometimes.

What They Wish Others Knew

Responses varied widely and could be grouped into themes according to whom their responses were directed. In order of frequency, these were: "Everyone," "Other Veterans," the "Public," the "Mental Health Profession," and "Personal reflections."

Comments directed toward "*Everyone"* (28 responses) were split evenly between calls for improved understanding of PTSD/military trauma and cautions that awareness is not understanding. "*Other Veterans"* (18 responses) included words of encouragement

that talking through it and attending group can help, that you are not alone, and advice to be considerate of other people's trauma. "*Public"* (9 responses) included individual expressions of appreciation and veteran's attempts to explain themselves (e.g., "I mean what I say," "I appreciate the support even if I don't say anything," "vets aren't violent," "I don't regret serving.") "*Mental Health Profession"* (8 responses) included calls for more veteran representation at the VA and among counselors, greater understanding of veterans and military life, and suggestions to improve group therapy at the VA. "*Personal reflections"* (7 responses) concerned what individuals have learned about themselves living with trauma (e.g., "I still think about the hard times a lot," "it's a process based on what I put into it," "I needed to learn to stop worrying about what other people think of me.")

Summary

Participants within the groups demonstrated a wide range of self-reported symptom severity for both PTSD (16 – 67 of 80) and moral injury (10 – 80 of 100) at the start of the study (see Table 4). They demonstrated an average reduction in symptom severity for both measures ($M_{PTSD\Delta}$ = - 4.9, $SD_{PTSD\Delta}$ = ± 9.66; $M_{MI\Delta}$ = - 6.4, $SD_{MI\Delta}$ = ± 15.37), however the clinical reliability of these findings is in doubt. Additionally, some reported an increase in symptoms including two for PTSD, two for MI, and two for both PTSD and MI symptom severity. Possible explanations for these findings will be discussed in the next chapter.

Despite only small changes in symptom severity, individuals interviewed saw their group experiences as very positive. The majority reported continued struggles with

hyperarousal (e.g., hypervigilance, anger) and negative changes in mood and cognitions revolving around self-doubt and social issues. They identified professional treatment as key to helping them manage symptoms day-to-day, with most of those responses emphasizing connection with other veterans, either in group or with a counselor who is also a veteran. Reconnecting with faith and family and being in nature/exercise were also frequently identified as helpful in managing symptoms. Most participants were likely to turn to other veterans or immediate family members when feeling overwhelmed. They reported their experiences with other veterans since leaving the service as overwhelmingly positive and emphasized the shared understanding, experiences, and values they feel. The participants held widely varying views of what they wish others would know that might help and directed their responses toward "everyone," other veterans, the public, the mental health profession, and themselves in the form of personal reflections. The next chapter will propose further explanations for these results and provide insight into the implications of the seemingly conflicting quantitative and qualitative results reported here.

CHAPTER 5: DISCUSSION

Overview

This sequential mixed-methods study examined the relationship of participation in a non-manualized, open psychotherapy group, PTSD symptom severity, and moral injury symptom severity in military veterans. Furthermore, how military veterans perceived their group participation affected their overall quality of life was examined. This chapter will explore possible explanations for why the sample demonstrated only a small change in symptoms but expressed overwhelmingly positive views of the group work experience. It will raise questions about the merits of focusing solely on symptom measurement to determine the efficacy of the intervention, given the seemingly conflicting quantitative and qualitative results. Finally, it will highlight in the participants' own words key insights concerning the impact of the group experience on quality of life.

Summary of Findings

The results of the study indicate a small but statistically significant reduction in average PTSD symptom severity following the intervention. They also indicate a statistically significant but weak medium-sized reduction in moral injury symptom severity following the intervention. However, in contradiction to the quantitative results, from the perspective of the participants, the group experience was crucial for their well-being. The study provides evidence to support the suggestion of Garcia (2020) that it is necessary to ask people who have experienced trauma to understand what truly helps.

Participants reported being bothered most by persistent hyper-arousal (primarily hypervigilance and anger) and negative changes in mood and cognition (primarily self-doubt and socialization issues). They identified professional treatment as most helpful in managing their symptoms day-to-day, specifically when it involves group with other veterans or receiving individual treatment from a provider who is also a veteran. Increased reliance on faith and family, and time in nature and/or exercise were also helpful. The majority reported turning most often to other veterans or, to a lesser extent, immediate family members when feeling overwhelmed. They also reported overwhelmingly positive experiences with other veterans since leaving military service. They called for everyone to have a better understanding and awareness of PTSD/MI, and what it is like to live with military trauma. They also offered encouragement to other veterans who they fear may still be struggling without support. Finally, the participants offered advice to the public and mental health profession on how to better work with military veterans with trauma and provided insight into their personal recovery journeys.

Discussion of Findings

Statistical results

The quantitative results appear to demonstrate the efficacy of the non-structured group work for achieving statistically significant medium-sized reductions in PTSD symptom severity in military veterans, consistent with other studies that observed similar effect sizes with more formal interventions (Cenkner et al., 2021; Cowden et al., 2021; Davis et al., 2020; Fredman et al., 2020; Grodin et al., 2021; Hall et al., 2020). The same appears to be true for moral injury and the statistically significant small-sized

improvements in symptom severity similar to group programs designed to address moral injury and the spiritual aspects of trauma (Knobloch et al., 2020; Starnino et al., 2019a). However, the observed change in PTSD severity barely met the cut-off to indicate a reliable clinical effect. Worse, the achieved power of the MI data failed to meet the established power threshold. One reason for this was the small sample size, which was the result of last-minute VA-directed changes to the agreement with the Vet Center. These dictated that data collection could not take place during scheduled group time. Few potential participants were able to show up early or stay late on a regular basis. The restriction also made the geographically distant groups (which are held in tightly scheduled borrowed spaces) inaccessible to me. In coordination with the committee chair and department director, the author decided to proceed with the available data.

Diversity of the sample

The fact that the majority of the sample tested positive for both PTSD and MI is in line with previous studies, which found that these two conditions are typically comorbid in military veterans and are best addressed together in treatment (Ames et al., 2021; Norman & Maguen, 2021; Williamson et al., 2020). The magnitudes of symptom severity changes varied widely between individuals, from |– 26| to |+19| for PTSD and from |– 35| to |+ 26| for moral injury (see Table 1). This broad range of severity reflects the clinical diversity of the sample and illustrates the highly personal nature of group work effects. How far along a veteran is in the healing process has a major impact on the effect of an intervention. While some participants reported long-term involvement with treatment, others were just getting started, and the results reflected that. Army-Vietnam3 reported, “I've talked about this stuff for years. It doesn't bother me that much anymore,

but I still have vivid memories of what happened." In contrast, others suffered the exhaustion endemic to early treatment:

> It's tiring to repeatedly talk about what happened so I can get help and go through the C&P [compensation and pay] process. I kept it closed for 30 years and only trusted one or two enough to talk to about it, and they're both dead now. It wasn't until the past few months that I started opening up about it, particularly to the VA. (Air Force-GWOT20)

As the veteran above is beginning to learn, things typically get worse before they get better. This early treatment effect explains the outliers identified in the PTSD data. Bad memories that have been locked away are intentionally brought to the fore in treatment causing a temporary worsening of symptoms. Once processed, however, trauma can heal over time.

Another possible explanation for the diversity of scores and low statistical power may have been the reliance on self-report measures. The PCL-5 and MISS-M-SF ideally consider symptoms over the past month. However, individuals completing quantitative measures tend to focus more on their current emotional experience. Subjective symptoms change daily, so scores are more likely to reflect current feelings than objective clinical assessment. One of two participants who reported clinically significant increases in both PTSD and moral injury severity also usually does quite well and is very active as a mentor and in community outreach:

> I have two kids who are both vets themselves. My younger one is in the National Guard and getting ready to deploy. The other was active Army and is retired

> now… I wish other people could understand what it's like. You get antsy, you know. (Army-Vietnam3)

It seems likely that personal stressors affected his self-assessments. This veteran's example highlights the need for a better understanding of the day-to-day experience of living with trauma. As Army-ODS2 pointed out, "I wish they would have a better understanding of PTSD. Some people think, 'here, take this pill, and you're healed.' But it stays with you the rest of your life." Ironically, some participants saw little value in medication. For example, NMCB-Vietnam22 explained, "The psychiatric medications didn't really help much, but the psychologist really did." Army-OIF27 complained, "For the nightmares and bad dreams, the VA has me on medication so now I don't dream at all or can't remember them." Another participant confided that although he takes VA prescribed psychotropics, he still relies on medical marijuana to help manage his anxiety (Air Force-OIF26). The veterans' responses corroborate the finding from previous studies indicating that there appears to be something more important for quality of life than symptom reduction or masking with medication (Cusack et al., 2019; Schwartze et al., 2019).

What bothers participants most today

Hyperarousal

Another indication that symptom reduction may not be the most important aspect of life after trauma is evident in participants' reports of what bothers them most. Hyperarousal, often in the form of hypervigilance, exaggerated startle responses, or anger, was the most referenced lingering symptom by participants but it also saw some of

the biggest improvements following the intervention (see Table 2). As a 35-year-old Navy veteran put it:

> I can't tie the breakdown to any specific incident, but I took my job very seriously. Now I find myself always on edge and feel like people are staring at me and hostile toward me. The military trained us to be situationally aware, and even though I try to let it go, I feel others are hostile toward me or follow me. I have sensitivity to sounds, bright lights, smells, tastes that I didn't have before. (Navy Reserve-GWOT4)

Marine-Just Cause13 explained, “I'm paranoid, always watching my back. When I drive, I always feel like someone is following me. In church, I sit in the back… Noises startle me — loud or unexpected. Being in new places bothers me.” Others offered:

> In general, I would say my hypervigilance bothers me most, along with increased anxiety, and general view of life. I feel like I always have to be ahead of the game, hypervigilant. I think my military experience was good for me and that it compounded PTSD that was already there. (Air Force-OIF26)

For someone who experienced chaos and danger as the norm and had to fight to survive, being vigilant and violence of action are simply prudent. They often do not recognize their behavior is out of the ordinary until someone else points it out:

> For a while, I didn't know I had a problem. In the very beginning at work, someone used to scare me all the time. I tried to warn them, but they kept doing it. The tenth time I snapped on them and my employer told me I needed to get help. I did so and have been able to keep going. (Army, ODS2)

One key is learning to adapt military conditioning to the typically safer life outside the military, although heightened vigilance and tendencies for action may remain.

> Through [my veteran provider's] time here I've improved a great bit. He's been there and he got me through this and I'm a lot better than I was. The hyper alertness and being on guard bother me most today, but it has gotten a lot better with counselors who have been through it themselves. (Army-Vietnam9)

Another reiterated the importance of talking about what they are experiencing, "I'm getting better. I used to fly off the handle real quick [sic]. Once someone asks, I think about it. It starts to bother me, but I think the more I talk about it the better off I am," (Marine-Vietnam7). Learning to adapt to the new (post-trauma) way one's autonomic nervous system works and to respond appropriately seems more important for quality of life than trying to stop automatic negative thoughts or feelings. The survival instinct driving ANS responses is vital for everyone in or out of uniform and heightens after trauma. The past cannot change, and so, a healthy brain might recall a bad memory at any time without knowing why. Learning to understand that and make helpful lifestyle adjustments is what improves quality of life:

> I just had an episode yesterday thinking about a rocket attack at a movie at our outdoor theater in Vietnam. One rocket hit on one side of us and another hit on the other side. Before the rockets hit, I checked my escape route, so when they hit, I took off across the compound and fell in a ditch. Yesterday I had a panic attack sitting at my granddaughter's concert. When I saw the exit sign, something about it reminded me of that day and it caused a panic attack. I didn't think after all this time it would come back. For years my wife would sit in the middle, and I

> eventually told her if she continued, I wasn't going anymore. Now we sit on the end so I feel I can escape if I need to. (NMCB-Vietnam22)

Negative changes in mood and cognition

Negative emotional changes often include feelings of self-doubt and false guilt that amplify after leaving military service and blend with everything else the individual has experienced. Air Force-OEF1 reflected, "I had a hard time discerning stuff from addiction and stuff from the military. I think the addiction was a way to cope with the loss of purpose and existential crisis that cropped up after leaving the military." Life with trauma occurs in the context of a world that never stops:

> I think the repeat of the same conflicts makes it worse, like we didn't learn anything as a country. But if I turn off the news, I feel like I'm turning my back on others. Military service was expected. My dad was Army. My grandfather was a Marine. I feel guilty for what I might have been able to stop over there. (Marine-Vietnam8)

Such sense of duty to serve impacts many veterans, especially when armed conflict continues around the world:

> It has become such a part of me it is hard to figure out. I still feel guilty for not being with the guys anymore, being part of it, and not protecting them now. I've been seeing [my veteran provider] for 10 years now but if I don't take it seriously, I go down a rabbit hole quick. (Army-OIF15)

Guilt for one's actions in war and after returning home troubles many.

> Guilt bothers me most. I still occasionally struggle over things I did, men I lost whom I was in charge of... the way I acted after deployment. Back in the day, my go to was alcohol. I was very arrogant and self-centered. (Infantry-OIF24).

Difficulty relating to others and relationship problems were also common. As stated previously, most of the participants who are or were married had been divorced at least once.

> It made me realize in what ways it did affect me. The major thing is my emotions. I turned them off and couldn't get them back. I've been through two marriages. The kids from my first won't talk to me. It helped to turn them off but now emotions are an issue. I can hardly watch anything on TV with emotions and I overreact. I've also had anger issues and I don't sleep worth a shit. I can't watch news because it upsets me. I turn the volume down, so I don't hear anything climactic or emotional. (Army-Vietnam14)

Difficulty trusting others also causes problems. A 50-year-old Afghanistan veteran stated simply, “I have trust issues, my PTSD, just getting along with others,” (Army-OEF17). Army-Desert Storm19 reflected, “I've had PTSD since I was 8 years old. My life was pretty screwed up. I've done all the 12-steps, church, everything, but I still struggle with social issues.” As a female veteran and widow with non-combat trauma, Air Force-GWOT20 offered, “It impacts my socialization, particularly when I open up to my military experience, which I don't like to talk to people about. Trust levels, social isolation, and difficulty connecting with other people are still problems.” The study corroborates what Mitchell et al. (2020) found; military trauma changes the experiencer in fundamental ways:

> Everyone who knew me before says I 'm not the same person. My wife noticed it the most. I used to be extremely social. Now I'm comfortable at group or the VFW [Veterans of Foreign Wars] but going someplace with a lot of people I don't know is a No Go. Until about 3 years ago, I couldn't go to the mall or Bass Pro Shop without having a panic attack. 'Which one of these is the suicide bomber?' Whether it's PTSD, TBI, or both doesn't really matter, it's just the way it is. I used to have a lot of patience but now I no longer suffer fools well. (Army-OIF27)

Connection with a service dog or emotional support animal can help a veteran reconnect with himself and begin to replace unhelpful reactions with more helpful responses without unwanted talk:

> When I was young, something triggered memories of Vietnam and my ex told me I embarrassed her with the way I overreacted… I think I'm doing pretty good now. I saw a big change when Cobra6 gave me a dog. Sometimes just being alone bothers me now, but the dog helps a lot in that regard. (Army-Vietnam21)

The veterans' responses make clear that accepting that a traumatized brain works differently and learning to work with those changes by making positive lifestyle adjustments can be more effective than trying to halt the natural survival response.

Other lingering symptoms

Although some reported problems with intrusive thoughts and sleep problems (Cluster B symptoms), many of these were tied to negative emotions like guilt or self-doubt:

> One of the guys on my truck shot a man in the head right in front of his family. I don't think we should have been there. I don't know what we accomplished. I still

> think about it, especially the kids. I still dream about it. I don't have many friends anymore. I grew up poor and still think about those poor kids over there. (Marine-Vietnam18)

Others accepted them as a consequence of their combat experience and, although frustrating, have learned to live with them:

> My breathing and not being able to sleep bother me most - nightmares, waking up in fight or flight. When I started out it was total restless sleep. Now I can sometimes sleep 2-1/2 hours, then I'm back up wide awake. For those 2-1/2 hours I am out. Someone could drag me, and I wouldn't know it. Other times I may not sleep for three days. Through the years, I've learned a lot about how to deal with it. (Army-ODS2)

Some recognized their avoidance was not always obvious and could include seemingly productive behavior. “For years I was busy, busy, busy. And when I wasn't at work, alcohol did it,” (NMCB-Vietnam23). Another lamented, “It's too late now for Vietnam veterans. I knew two personally who became alcoholics and killed themselves,” (Army-Vietnam14). The participants understood that in the face of severe alcohol or substance abuse, getting sober was the necessary first step in recovering from trauma.

Things That Help Most

Professional Treatment –Group and Individual

Interviewees confirmed the importance of professional treatment and interaction with other veterans for their recovery. “Individual and group treatment for PTSD has helped me most,” (Air Force-OEF25). Perhaps controversially, the results show a strong preference, especially among combat veterans, for a provider who has also served in

uniform. This subtheme permeated responses in all areas. One Vietnam veteran confided, “I was chronically depressed for years, but once I got counseling and knew what it was it helped. The Vet Center [and my veteran provider] saved my life,” (NMCB-Vietnam22). A strong sense of connection through shared understanding derived from relatable lived experiences was crucial. This is consistent with findings that social support made the biggest difference for people with PTSD coping with COVID lockdowns and in studies of more structured group programs such as REBOOT and SFM (Buttanshaw et al., 2022; Held et al., 2019; Knobloch et al., 2020; Starnino et al., 2019b). The finding also aligns with biblical teachings that community and mutual support are essential for helping each grow stronger (Matthew 18:20; Hebrews 10:19-25; Proverbs 27:17 NIV). As one Afghanistan veteran noted, “The groups help in feeling I am not alone; we’re helping each other cope. Even though we had vastly different experiences, we support each other,” (Air Force-OEF1). An aging paratrooper lauded the veteran provider facilitation of the groups:

> The group participation is real good. I've been doing weekly groups for at least 10 years. [My veteran provider/group facilitator] had a big impact on me. It seems as though I've said it all now. I got it out. Going through what we did, we will never be the same. (Army-Vietnam9)

For many, just the company of other veterans was enough:

> I'm not very social, I don't have many friends. When I go to group, I mostly listen. Before the military I was talkative and loud. Just listening in group is good therapy too. My dad was in Vietnam but never talked about it. Seeing these guys is like seeing him again. (Marine-Just Cause13)

As a 40-year-old Iraq vet opined:

> The group definitely helps for sure. I work for the Navy so I still feel connected and like I am helping the troops. The job gives me purpose, the group gives me the camaraderie. Until I went to the group, I had no idea what I had been missing. Even then it took me a year and a half before I would speak in any meaningful way. It's been very helpful for me. (Army-OIF15)

Psychoeducation was key to helping veterans make sense of what they were experiencing and learn skills to deal with it in daily life:

> Staying connected to vets I trust has been important to me. Opening up to professionals in the community has been new for me. I trust a medical professional who is a vet, which has been easier for me. Being willing to be vulnerable and learning more about PTSD in the groups I attend has been informative and helpful. (Air Force-GWOT20)

One veteran acknowledged the value of intensive treatment for some. “Coatesville VA in-patient helped a lot. Hearing about how other people deal with it helps… Understanding PTSD helped a lot. I knew I had a problem, especially with anger, but didn't know what it was. I try to understand different perspectives now,” (Army-Vietnam11).

Faith and God

Reconnecting with God on a personal level was crucial for finding hope and self-compassion. Unlike in more structured spiritual programs such as REBOOT (Knobloch et al., 2021), veterans of all ages found their way to God indirectly through relationships with other veterans. A 74-year-old infantryman explained, “God and Jesus [help me

most]. I gave my life to God last Easter. I dwell on the positive and not the negative so much anymore," (Army-Vietnam16). A 53-year-old Desert Storm veteran offered, "What has been most important for me is God and learning empathy, humility, and wisdom. I was an absolutely disgusting individual. Anything that's different in me now is a good thing," (Army-Desert Storm19). An Iraq veteran responded, "What helps me most is probably spirit. I read the bible, do daily devotions, the hikes [with other veterans], kayaking, being out in nature. I still do a lot of self-reflection," (Infantry-OIF24). "Prayer is important for me and staying in faith," (Air Force-GWOT20).

These findings highlight that healing is a multi-faceted personal endeavor not restricted to a formal intervention. "Having a support system in place, going to group two times per week, talking to my [veteran] counselor, and church of course all help," Afghanistan veteran (Army-OEF17). "My support animal and routine keep me on track. Keeping myself busy with other things like volunteering at JFT [Just For Today Veteran Services], the DAV [Disabled American Veterans], and the VFW... I relate to the 'lone voice calling out in the wilderness'," (Army-OIF27). Said another, "My kids are a big help, oh, and seeing my grandkids. I like getting away, like hunting trips," (Army-Vietnam21). Most recognized their personal responsibility for recovery and reconnecting with themselves. A former intelligence analyst confided, "I still like to learn about history and get into the heads of radicals. Or I watch comedy to put me in a positive headspace. I mostly like spending time with animals and being in nature," (Navy Reserve-GWOT24). Sometimes holdovers of wartime experiences cannot be fixed and one must learn how to best deal with the new reality. "I do a round robin. When one thing doesn't work, I go to another - go for a walk, do laundry, joke with friends. Now I'm trying to find what my

limits are for oxygen due to my combat-related health condition," Desert Storm toxin exposure survivor (Army-ODS2).

Who Veterans Turn to First

The interviews make clear that most veterans overwhelmingly turn first to other veterans for support. The values of brotherhood, mutual support, and self-sacrifice are traditionally ingrained soon after a trainee dons the uniform. Although family is very important, spouses and other family members often have difficulty relating to the veteran's military experiences. This reinforces the importance of veteran providers and contradicts the misperception held by many mental healthcare workers that 'any competent provider' can provide adequate care for veterans. It also highlights the divide in understanding and experience between military veterans and civilians found in previous studies (Caldwell & Lauderdale, 2021; Hundt et al., 2019; Krzemieniecki & Gabriel, 2021; Mittal et al., 2013). A Vietnam veteran explained:

> The group keeps me grounded and I know I can call [my veteran provider]. Knowing that support is available helps… I feel lucky that I've been married to the same woman for 50 years; I talk with her somewhat but not in detail. She understands the basics and now that we have a diagnosis, she is much more accepting. (Army-Vietnam11)

A 30-year-old active-duty Airman reiterated, "My therapist is a vet, so that helps. I presented some of the challenges of what I am facing to the group to get their input. [I turn to] my best friend and parents as well but not as frequently," (Air Force-OEF25). A Desert Storm veteran's support included, "The veteran services rep, group, my neighbor, an old friend who also turns to me, other soldiers from the group," (Army-ODS2). When

available, people who served aide-by-side were often the top choice for support. “I usually turn to one of my buddies I was in the service with, I'll call them… There's mainly three I keep in touch with,” (Marine-Just Cause13). An Iraq Marine confided:

> Honestly, I still very much turn to [my veteran provider]. As good as I'm doing in the group or at home, I'm not totally open. Maybe he is my comfort zone but I'm working on expanding my circle… It takes me a very long time to build connections with people, but once I do they tend to be strong. Once I left active duty, I pretty much lost all friendships until I started in the groups. (Army-OIF15)

An Army infantryman explained the challenge:

> I do have a counselor at the Vet Center and the guys in the [veteran provider facilitated] PTSD group. I have a couple of old buddies I served with who I can call and talk about it with. My wife to a certain extent, tries to empathize, but unless you have been through something similar, you cannot understand. (Army-OIF27)

Experiences with Other Veterans Are Positive

Veterans generally hold each another in higher regard than they do non-veterans and find it easier to trust one another, even if others find them disagreeable:

> I love it. I like people in general, but I prefer veterans because they're dickheads, assholes, degenerates - real people who are honest with you. Since getting out I've also realized there are different kinds of veterans. I think there are some who get it and recognize the world is not the same as them. Others try to make the world like them and become angry and bitter. (Marine-OIF10)

A former Navy SEAL reiterated, “These guys in the group can say anything. I know I'm in a group who support me no matter what,” (SEAL-Vietnam6).

> Whenever I go away or to church or a restaurant, I scan and usually find a vet. That's who I talk to. Up until I had my surgery last year, I didn't know groups like this existed. The group has made me realize some of the problems I have and that I'm not the only one. Some of the feelings I feel, I'm not the only one. (Marine-Just Cause13)

> I can talk with other vets. You wouldn't see any of these guys talking to anyone off the street the way we talk in here. A few years ago, my ex asked if I ever killed anyone. It pissed me off so bad I said yes because I did… My platoon sergeant had a sixth sense [and saved my life], he was the kind of guy you could trust. My XO was a good guy too, he tried to help me out even years later. (Army-Vietnam14)

The shared social experiences of veterans in and out of uniform fuel the bond they feel with one another. “I think the familiarity of living in the same social construct outside the military in civilian life helps. We have different details but often the struggles are the same,” Air Force-OEF25.

> I had the attitude for a while that just because we're veterans doesn't mean we're the same, so I avoided them. I also downplayed my service and was lowkey around other vets and people in general. It was harder a few years ago but since I started going to groups, I realized everyone has the same thoughts and feelings as I do. (Army-OIF15)

Even years after leaving the military, most veterans feel a stronger affinity with fellow veterans than with civilians. “I feel more comfortable around vets than I do around civilians. My best friend is not a vet, but her ex-husband is. I feel like I can relate to them and that they understand what I've been through,” (Army-OEF17).

> I refused to go to meetings for years. My first counselor was a vet and convinced me to go… I knew he suffered from the same things we did and had worked through it. The group meeting is one of the greatest things I've ever done. I wish I had started them earlier. You can talk to guys who understand. I've made a lot of good friends. (NMCB-Vietnam23)

> When I got out, I wanted nothing to do with the military or vets. What I realized was I really missed the camaraderie. What I still love is talking with other vets, hearing their stories. Like at the vet hikes and stuff, I just enjoy being around them. (Infantry-OIF24)

As others have found, although the interactions are mostly positive, some still struggle (Shepherd et al., 2021; Vogt et al., 2021). Veterans recognize this in each other and try to help.

> In this area, the brick wall still exists. The local VFW commander is a younger guy who has PTSD so bad, but he denies having a problem. Then his wife comes to me and says he has a problem and people don't see him at night. I've been trying for two years to get him to get some help or come to group with no success, but I'll keep the door open in case he's ever ready. It took my wife to leave with the kids for me to get help. (Army-OIF27)

The idea that circumstance forced many veterans to reconnect with the military/other veterans was common and reconnecting was difficult at first. “I didn't have experience with other vets until I got in trouble with the law. For quite some time after I left the service, I had no contact. Since I got in trouble I've been working with other vets a good bit,” (Air Force-OIF26). “I admit sometimes listening to other vets' stories, I feel survivor's guilt and wish I had done more. My faith tells me I was where God put me and maybe I would be more crazy than I am,” medic Vietnam (Army-Vietnam12).

> I had a lot of close friends in the military. Since I got out, not so much. I think any place is a weird place for vets. I didn't act in my own best interests in the beginning. Since then, I think it has improved. (Air Force-OEF1)

What respondents wish others knew

To everyone – Awareness Is Not Understanding

Respondents called for greater understanding of trauma for the public, fellow veterans, and the mental health profession. While the DSM-5-TR (American Psychiatric Association, 2022) defines diagnostic criteria for PTSD, it fails to capture the reality of life in the aftermath of trauma. “First of all, vets who have PTSD are not their diagnoses. They're not violent. Having symptoms of PTSD does not make them violent. There's a lot of stigma in the community and with vets,” (Infantry-OIF24). The medical model, which focuses on reducing symptoms, also fails to help veterans manage the long-term life altering impacts of military trauma. “I wish [everyone] would have a better understanding of PTSD. Some people think, ‘here, take this pill and you're healed.’ But it stays with you the rest of your life,” (Army-ODS2). “I wish people knew how to recognize symptoms

for what they are, which is hard not knowing their background and how trauma affects brain chemistry," (Air Force-OEF25).

Several pointed out that awareness of a problem, whether among veterans, the public, or mental health professionals, is not understanding:

> There seems to be an awareness that PTSD is out there but not an understanding of where it comes from or what war is about. Even other military who have not been in combat can conceive what war is like. But I don't think anyone who has not experienced it can understand it. (Army-Vietnam11)

> It might have helped if I knew sooner that it was a normal response to trauma. There's still a stigma in the military and from the ways I was raised. I thought guys didn't talk about that. Talking about it is the right thing to do but it sometimes makes it harder at first. It's a process based on what I'm putting into it. (Air Force-OEF1)

Trauma is different for military veterans both in its frequency, repeated shifting between good and bad experiences, and the emotional confusion that causes. "Part of the horror is knowing something is wrong but not knowing what it is. Knowing what it is makes it easier to deal with it," (SEAL-Vietnam6).

As one veteran turned social worker explained:

> For vets, it's often not a single traumatic event, but a series of a lot of moderately traumatic events over years, intermixed with a lot of good stuff. So, it's a mix of a lot of emotions. People think you're just sitting there staring into space, and they think you're 'back there', but at least for me, it's not like that. Something really good and positive is happening then a minute later something terrible happens.

> That's just the way it is in combat. People have a hard time understanding that. (Infantry-OIF24)

"Awareness is good, but you can say all these things and teach people about it, but unless you have it or are a vet, it seems a waste of time," Air Force Iraqi Freedom.

To fellow veterans – It Can Get Better

The message veterans in group have for their fellow veterans is one of hope and encouragement. "It's ok to get help. I wish my fellow vets and the people supporting them knew that there's no shame in it (contrary to some military stereotypes). Even though it's dark, you have an opportunity to make tomorrow a little better," (Army-OIF27). "I really had to train myself to not worry about what I think other people think of me," (Air Force-OEF1). "It is important to understand you can and need to make positive changes for yourself. There are a lot of negative impressions out there about therapy. I wish people knew it wasn't a bad thing and were willing to ask for help," (Navy Reserve-GWOT4). Said one former paratrooper "I no longer have anything to hide. That is such a good thing. Do you mean I could have just told everything and been better then? I feel free now," (Army-Vietnam9).

> I think the groups are great… Take what you like and leave the rest. The "Good News" is that you are not alone, and you can get help. Although your experience may not be exactly the same, there is a common thread that holds us together. (Army-Vietnam12)

To Healthcare Professionals – Vets Need Other Vets

> They know the words, but they don't really understand.
>
> — NMCB-Vietnam22

As discussed previously, the military comprises a culture of its own that often eclipses many other aspects of identity (Shepherd et al., 2021). Unlike other afflictions (e.g., depression, alcohol, or substance abuse), which can and do occur in every culture and socio-economic strata, military-related PTSD and moral injury are directly linked to the adoption of the military lifestyle. Few other professions require routinely risking one's own life or taking the life of another. Even first responders, possibly the professions most closely related to the military, focus foremost on protecting lives, and violence is considered an unfortunate fact of dealing with law breakers. For the military, taking life, whether directly or indirectly, is inherent to the job, making it extremely difficult for someone who has not experienced it to understand. Additionally, today's veterans are all volunteers, adding to the cognitive dissonance arising from knowingly violating moral and social norms. Veterans are particularly sensitive to this fact, which often compounds trust and relational issues in both individual and group therapy (Mitchell et al., 2020; Roberts & Warner, 2018). Despite years of practice and research, basic principles concerning patient care and trust are often violated by providers. "At the VA the doctors change quickly and don't know or forget about PTSD. It really plays with my trust issues. Some really get it but most don't understand at all," (Army-ODS2). "There's not many clinicians out in the community with experience working with vets. There's a need for much more education, even in understanding military culture," (Infantry-OIF24). This lack of understanding of the military experience fuels many veterans' reluctance to seek help:

> If they're a good psychologist and know about PTSD, they don't necessarily have to be a vet. But personally, I prefer a vet. It helps to know they've been through it

too. I can form a closer connection with another vet than I can with a civilian. Talking about it is what gets you through it. (Army-Vietnam16)

The importance of connection with fellow veterans in improving long-term quality of life cannot be overstated. “We've gotten away from the benefits of group treatment by shifting to EBT group treatments. By focusing on short-term EBT, we lose the camaraderie and mutual support of groups,” (Infantry-OIF24).

Implications

Hard times create strong men. Strong men create good times. Good times create weak men. And, weak men create hard times.

— G. Michael Hopf, *Those Who Remain*

The strongest implication of this study is that group work is essential for helping veterans accept what they experience in daily life, develop effective coping strategies, and, most importantly, understand that they are not alone in how they feel or think. Group work can no longer be viewed by the professional community as an unnecessary adjunct to individual psychotherapy. With this, there is a serious disconnect between how mental health professionals and the people who live with the aftermath of military-related trauma view healing. Clinical emphasis on symptom reduction based on self-report measures overlooks more immediate concerns to veterans, like knowing how to live in a society that does not understand them.

A second important implication of the study concerns how mental health professionals are trained to work with military veterans. Veterans want and need other veterans. For almost any other subset of the population, if a patient requests a therapist

from the same background, the industry tries to accommodate the request. A woman requesting a female therapist, a Black man requesting a Black therapist, or an LGBT person requesting an LGBT therapist would not be questioned. Despite this, military veterans are chided for preferring a veteran provider. Barriers must be removed to help more veterans become counselors. In the interim, civilian providers who wish to work with veterans must be vetted more effectively to ensure they have the necessary understanding of military culture and the veteran experience to effectively help and keep from causing further harm.

Finally, feeling disconnected from others, oneself, and God is inherent in the trauma experience. For the study sample, nearly all reported comorbid PTSD and moral injury, with significant overlap in symptoms, especially concerning guilt and social disconnection. Numerous participants admitted waiting years before seeking treatment or the company of other veterans, whether for shame, denial of problems, or fear of stigma. Veterans who have been through the valley and successfully come out the other side consistently tout the importance of faith, connection, and self-reflection for healing. Increased emphasis on the spiritual domain in treatment, particularly these specific facets, is necessary to address the soul wound that compromises so much of military trauma. Churches and veterans' organizations could play a key role in helping connect struggling veterans with competent mental health counselors and provide resources for non-VA-led support groups for veterans.

Limitations

Previous Limitations

This study focused exclusively on military veterans who are enculturated with a strong sense of cohesion and mutual support not found in the general population. Therefore, the results here may not apply to non-veteran populations. Additionally, the participants were all volunteers who self-selected for the study; thus, results may not apply to veterans who do not identify with military culture or eschew association with the military or other veterans, as many admitted they did before joining the group. Given that many participants had either been in treatment for years and/or had waited years before seeking treatment, the 12-week duration of the test period was too short to target more significant long-term change. Additionally, social support and symptom severity are likely to vary over time, even with the expanded support base provided by the group and the help of facilitators in building a broader support base. It is likely, therefore, that self-perception of symptoms and well-being will fluctuate over time.

The experience and background of the group facilitators was also a limitation. The facilitators of the sample groups were licensed clinicians who were themselves post-911 military veterans with experiences similar to the group members. The similarity between facilitators and group members proved critical to building rapport and trust, and several participants credited their improved quality of life to this. With rare exception, non-veteran providers seem unlikely to be able to elicit the same results.

Newly Discovered Limitations

The study findings highlighted the limitation of relying on self-report measures. Participants exhibited a broad range of symptom severity and had received a wide variety of lengths and types of treatment prior to the start of the study period. With such a

clinically diverse sample, relying on self-reports limited the value of one-to-one comparison between subjects.

The small sample size severely limited the statistical power of the study, and presented a major limitation to the clinical reliability of the results. While the initial design called for a larger sample, VA-imposed restrictions changed the original agreement and invalidated the backup plan for adding participants. Although the study provides strong evidence for the value of group work to veteran well-being, a larger sample would be needed in order to derive reliable, clinically significant conclusions about the efficacy of group work for reducing symptom severity.

Recommendations for Future Research

This study was preliminary in nature and designed to guide future research into the efficacy of unstructured group work and how to improve treatment for veterans. A similar study with a much larger population and longer duration could substantiate the reliability of symptom severity changes.

The study also draws into question the relative importance of select diagnostic criteria for PTSD and moral injury and what constitutes healing and recovery. More research is needed to re-examine how the experiences of PTSD and moral injury are defined and what "getting better" means for treatment.

More research is also needed on the relative importance of having a veteran provider compared to a non-veteran provider and how the difference impacts the patient's perceived quality of life. Despite qualitative reports of persistent hyperarousal and negative changes in mood and cognition, participants reported significantly improved

quality of life in terms of positive interactive experiences, often directly crediting their veteran provider. Those with non-veteran providers reported fewer benefits from individual therapy for improving their daily lives.

Finally, while some studies of group interventions for veterans incorporated exit interviews to capture veteran perspectives on their experiences, few prioritized the patients' subjective experiences over quantitative results. As this study revealed, there is often a significant disconnect between how healthcare providers gauge recovery and what the veterans who are living with the trauma deem important for quality of life. More research is needed, not only to capture participants' comments, but to prioritize them in published work to give voice to the veterans the industry purports to serve.

Summary

This study provided preliminary evidence that an unstructured group with a clinically diverse sample can help reduce PTSD and MI symptom severity but may not achieve reliable reductions as a standalone treatment. More importantly, it demonstrated that for the veteran participants the group experience provided crucial social support and connection that substantially improved their subjective well-being. While many continued to experience hyper-arousal and increased emotional challenges decades after leaving military service, the camaraderie and learning from each other they experienced in the group were life-changing. Participants acknowledged the importance of receiving professional help in both group and individual settings and expressed strong preferences for the company of other veterans in treatment and for having a fellow veteran as a provider. They also emphasized the importance of God and self-reflection for making

sense of their trauma and offered a message of hope to other veterans that life with trauma can get better. Finally, they called for greater awareness and understanding of military trauma for everyone but cautioned that awareness alone is not understanding.

The study demonstrated the importance of group work as a primary means for improving the quality of life for veterans living with trauma. Group work can no longer be treated as an afterthought in treatment planning. The study also illuminated a critical disconnect between how the mental health profession and the veterans themselves view healing. Clinical symptom reduction alone does not equate to a better personal experience for the trauma survivor. The emotional and social disconnections symptomatic of PTSD and moral injury require greater attention to the spiritual domain, both in treatment and in the community, to help veterans reconnect with each other, their families, themselves, and God.

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APPENDIX A: CONSENT FORM

Consent

Title of the Project: The Efficacy of Group Therapy as a Primary Treatment for Military Veterans with Trauma
Principal Investigator: [redacted] Doctoral Candidate, Psychology Department, Liberty University
Committee Chair: [redacted] Psychology Department, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be at least 21 years old, a military veteran who has completed initial entry training and served at least six months in a duty (non-training) unit, have a history of trauma either before, during, or aggravated by military service, reside in central Pennsylvania, and participate regularly in either a [redacted] PTSD group. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to examine whether and how participation in 12-weeks of a veterans' PTSD group affects trauma symptoms and how the veterans feel their group participation has impacted their overall quality of life.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:

1. At the first session, complete a brief checklist of your PTSD symptoms in the past month (the Posttraumatic Stress Disorder Checklist or PCL-5). This will take less than 10 minutes.
2. Also at the first session, complete a brief checklist of your moral injury symptoms in the past month (called the Moral Injury Symptoms Scale–Military Version–Short Form or MISS-M-SF). This will also take less than 10 minutes.
3. Participate in the remainder of the group session as you normally would (approximately 70 minutes).
4. For the next five weeks, simply participate in the normal weekly group sessions (approximately 90 minutes per session).
5. At the week 7 session, again complete the checklists about your PTSD and moral injury symptoms over the past month (less than 10 minutes a piece) and participate in the remainder of the group session (approximately 70 minutes).
6. For the next four weeks, simply participate in the normal weekly group sessions (approximately 90 minutes per session).
7. At the final session (week 12), again complete the PTSD and moral injury checklists (less than 10 minutes a piece), and participate in the remainder of the group session (approximately 70 minutes).
8. After that final session, I will ask you to schedule a private 30-60 minute audio-recorded interview with me [redacted] about your impressions of the group experience.

How could you or others benefit from this study?

The direct benefits participants should expect to receive from taking part in this study include increased knowledge of posttraumatic stress and moral injury, learning additional coping skills, the opportunity to interact with and get to know other veterans from the local area, and greater awareness of additional resources that have proven helpful for other veterans who use them.

Benefits to society include improved understanding of the impact of social support for military veterans with trauma, improved treatment effectiveness for PTSD and moral injury, and the ability to get more veterans into treatment sooner by increased use of group interventions.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The risks involved in this study include listening to either you or others recall and discuss prior trauma. To reduce risk, the group facilitators will monitor participants, discontinue the interview if needed, and provide referral information for individual counseling services.

I am a mandatory reporter. During this study, if I receive information about ongoing child abuse, child neglect, elder abuse, or intent to harm self or others, I will be required to report it to the appropriate authorities.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researchers will have access to the records.

- Participant responses will be kept confidential by replacing names with randomly generated number identifiers.
- Interviews will be conducted in a location where others will not easily overhear the conversation.
- Confidentiality cannot be guaranteed in group settings. While discouraged, other members of the group may share what was discussed with persons outside of the group.
- Data collected from you may be used in future research studies or shared with other researchers. If data collected from you is reused or shared, any information that could identify you, if applicable, will be removed beforehand.
- Data will be stored on a biometric and password-locked computer. After seven years, all electronic records will be deleted and all hardcopy records will be shredded.
- Recordings will be stored on a biometric and password locked computer until participants have reviewed and confirmed the accuracy of the transcripts and then deleted. The researcher and members of his doctoral committee will have access to these recordings.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University, [redacted] If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is [redacted] You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [redacted] You may also contact the researcher's faculty sponsor, [redacted]

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is [redacted]

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record me for the final interview as part of my participation in this study.

_____
Printed Subject Name

_____
Signature & Date

APPENDIX B: SEMI-STRUCTURED INTERVIEW FORM

Interview Protocol: Veterans' Experiences Living with PTSD and Moral Injury: What They Feel Helps Most
Date/Time of Virtual Interview: (Projected 30-60 minutes)
Interviewee Location: home, other
Interviewee Identifier:
Interviewer:
Venue: doxy.me (virtual), recorded started only after consent confirmed
Interviewee overview (include combat operation, time since last deployment, age/life stage):

Interview questions:
How do your PTSD and previous military experiences impact your daily life today? What bothers you most?

What helps you most in managing your PTSD symptoms day-to-day?

Who do you turn to when you feel overwhelmed by daily life or troubling memories of moral injury?

How would you describe your experiences with other veterans since leaving military service?

What do you wish others would know that would help you feel more connected and supported in living with PTSD?

Thank the veteran for participating in the interview, assure them of confidentiality, and ask if they would be willing to participate in a follow-up interview if needed.

APPENDIX C: POSTTRAUMATIC SYMPTOM CHECKLIST, DSM-V (PCL-5)

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Form is available at:
https://www.ptsd.va.gov/professional/assessment/documents/PCL5_Standard_form.pdf

APPENDIX D: MORAL INJURY SYMPTOM SEVERITY – MILITARY – SHORT FORM (MISS-M-SF)

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Form is available at: https://academic.oup.com/milmed/article/183/11-12/e659/4934229

APPENDIX E: CODING MATRIX COMPLETE

Q1: How do your PTSD and previous military experiences impact your daily life today? What bothers you most?	
Q1 Key Words	Q1 Themes
addiction	HYPER-AROUSAL (25)
loss of purpose	Hypervigilance/always on edge (8)
sleep issues	- panic attacks (1)
hypervigilance	Anger/irritability (7)
vivid memories	Exaggerated startle response (4)
anger	Known triggers
always on edge	- news (3)
lack of recognition	- crowds (1)
hypervigilance	- anniversaries (1)
exaggerated startle response	NEGATIVE CHANGES EMO/COG (21)
fly off the handle	False guilt/self-doubt/self-esteem issues (7)
guilt	- loss of purpose (1)
hyperalertness	- lack of recognition (1)
avoidance	- depression (3)
self-esteem issues	Emotional stuffing (1)
triggers - news	Socialization
anger	- social isolation (3)
exaggerated startle response	- difficulty connecting with others (2)
paranoia	- broken relationships (1)
exaggerated startle response	Trust issues (2)
anger	INTRUSIVE THOUGHTS (7)
sleep issues	Sleep issues/bad dreams (3)
triggers - news	Intrusive thoughts/vivid memories/flashbacks (3)
medical issues	- rumination (1)
guilt	AVOIDANCE BEHAVIORS (5)
social isolation	Drug/aclohol abuse was common prior to treatment (5)
rumination	OTHER
trust	Persistent medical issues (2)
anger	
guilt/self-doubt	
triggers - news	
difficulty connecting with others	
trust	
social isolation	
difficulty connecting with others	

Q1: How do your PTSD and previous military experiences impact your daily life today? What bothers you most?	
Q1 Key Words	Q1 Themes
broken relationship	
medical issues	
panic attacks	
flashbacks	
hypervigilance	
trigger - crowds	
exaggerated startle response	
anger	
guilt	
hypervigilance	
hypervigilance	
flashbacks	
nightmares	
irritability	
trigger - anniversaries	
social isolation	
guilt/self-doubt	
depression	
depression	
depression	
bottle up	
survivor's guilt	

Q2: What helps you most in managing your PTSD symptoms day-to-day?	
Q2 Key Words	**Q2 Themes**
group	**PROFESSIONAL TX/LL (26)**
pushing myself	Group (10)
use military skills	- Connect w/ vets (1)
process	Individual counseling (5)
round robin	- Vet provider (3)
finding my limits	Understanding PTSD/process (5)
walk	- round robin (1)
walk	- finding own limits/bounds (2)
service animal/ESA	- using mil skills (1)
comedy	**FAITH/FAMILY (21)**
nature	Faith/God/Prayer (6)
jokes	- gratitude (1)
solitude	- radical acceptance (2)

Q2: What helps you most in managing your PTSD symptoms day-to-day?	
Q2 Key Words	**Q2 Themes**
walk	- meditation (1)
service animal/ESA	- solitude (1)
wife and kids	- purpose (1)
keep busy/yardwork	- Volunteer/give back (3)
group	Family/little circle (4)
gratitude	**NATURE/EXERCISE (15)**
prayer	Nature/outdoors (7)
give back	Walk/exercise (5)
group	Service animal/ESA (3)
individual counseling	**OTHER (7)**
routine	Comedy/jokes (2)
exercise	Routine (2)
outdoors/nature	Medication (2)
understand PTSD	- medical marijuana (1)
medication	
radical acceptance	
think of others	
little circle	
group	
group	
purpose	
God and Jesus	
group	
individual counseling	
church	
take care of wife/family	
God and Jesus	
faith	
connection with other vets	
vet providers	
understand PTSD	
group	
kids/family	
hunting/outdoors	
group	
understand PTSD	
acceptance	
individual counseling	
spirit	
outdoors/nature	

Q2: What helps you most in managing your PTSD symptoms day-to-day?	
Q2 Key Words	**Q2 Themes**
individual counseling	
group	
exercise	
marijuana	
individual counseling	
group	
service animal/ESA	
routine	
volunteering	
meditate	
keep busy/yardwork	
understand PTSD	
nature	
medication	

Q3: Who do you turn to when you feel overwhelmed by daily life or troubling memories of moral injury?	
Q3 Key Words	**Q3 Themes**
friends served with	**OTHER VETS (33)**
myself	Group (11)
group	vet provider (11)
church	Service/vet buddies (10)
AA	- VSO (1)
group	**FRIENDS AND FAMILY (17)**
VSO	Family (13)
friend	LEO friends (1)
neighbor	Friend/neighbor (3)
kids/family	**GOD/SELF (11)**
myself	Myself (5)
family	God (4)
individual counseling	- Church/church friend (2)
group	**OTHER (5)**
wife/family	AA (2)
group	- individual counseling (2)
vet provider	- medical provider (1)
individual counseling	
group	
wife/family	

Q3: Who do you turn to when you feel overwhelmed by daily life or troubling memories of moral injury?	
Q3 Key Words	**Q3 Themes**
myself	
wife/family	
friend vet	
myself	
vet provider	
parents/family	
group	
vet provider	
wife/family	
kids/family	
God	
AA	
friends served with	
group	
group	
vet provider	
vet friends	
God	
wife/family	
vet provider	
vet friends	
church friend	
vet provider	
group	
group	
vet provider	
God	
vet friends	
vet provider	
medical provider	
family	
vet friends	
vet provider	
wife/family	
God	
friends	
vet provider	
parents/family	
vet friends	

Q3: Who do you turn to when you feel overwhelmed by daily life or troubling memories of moral injury?	
Q3 Key Words	**Q3 Themes**
myself	
vet friends	
LEO friends	
vet provider	
wife/family	
friends served with	
group	

Q4: How would you describe your experiences with other veterans since leaving military service?	
Q4 Key Words	**Q4 Themes**
nonjudgmental and compassionate	**POSITIVE (72)**
excellent	Excellent/good (12)
some don't want to get better	Similar experiences & understanding (12)
group	Camaraderie/brotherhood (9)
group	- Share/help/learn from each other (5)
mentor	Group (9)
not until group	Trust/honesty (5)
camaraderie	Nonjudgmental and compassionate (4)
talk similar experiences	Prefer other vets (4)
nonjudgmental and compassionate	Vet provider (2)
supportive	Encouraged (1)
talk similar experiences	Initially distanced/no longer do (9)
good	**OTHER (36)**
talk similar experiences	NEGATIVE (3)
group	- Some don't want to get better (1)
brotherhood	- See younger vets suffer in same way at VA (1)
trust	- Backslide into old mindset (1)
not until group	
interested	
relate	
positive	
love	
prefer vets	
real	
honest	
group	

Q4: How would you describe your experiences with other veterans since leaving military service?	
Q4 Key Words	**Q4 Themes**
learn from each other	
all in this together	
group	
vet provider	
very well	
relate	
look for vets	
not the only one	
group	
talk similar experiences	
trust	
help each other	
initially avoided them	
same thoughts and feelings	
group	
overwhelming	
learn a lot	
heartbreaking VA problems	
more comfortable around vets	
they understand	
get along with most	
group	
limited connection until group	
group	
backslide	
camaraderie	
cautious/leery until trust builds	
enjoy	
lot in common	
initially nothing to do with them	
group very positive	
initially refused to go	
vet provider	
understand	
group greatest thing I've ever done	
initially nothing to do with them	
camaraderie	
love	
hikes	

Q4: How would you describe your experiences with other veterans since leaving military service?	
Q4 Key Words	**Q4 Themes**
being around them mainly positive sharing common experiences and understanding same struggles initially none until arrested working together for the most part positive keeping the door open initially didn't tell anyone I served	

Q5: What do you wish others would know that would help you feel more connected and supported in living with PTSD?	
Q5 Key Words	**Q5 Themes**
not to worry about what others think of me PTSD is normal response to trauma stigma in the military talking is the right thing to do process based on what I put into it better understanding of PTSD stays with you the rest of your life trust issues what it's like awareness important to talk to someone you can make positive changes in your own life therapy isn't a bad thing treat you like a person people say they care but really don't I don't regret serving, it helped me grow up knowing what PTSD is makes it easier to live with	**EVERYONE ABOUT PTSD (28)** **A) WHAT IT'S LIKE** Better undertstanding/awareness of PTSD (6) PTSD is a normal response to trauma (1) - how to recognize sx (1) - trust issues are hard to explain (2) Stays with you (2) For vets it is often not a single trauma but a lot of little ones with good in between (1) There are a lot of ways to be traumatized (1) **B) YOU TRULY CANNOT UNDERSTAND UNLESS YOU LIVE IT** Awareness is not understanding (6) - what war/PTSD is like (3) Stigma persists (3) - people say they care but really don't (1) A lot of vets misportray PTSD (1) **OTHER VETS (18)** Talk to get through it (5)

Q5: What do you wish others would know that would help you feel more connected and supported in living with PTSD?	
Q5 Key Words	**Q5 Themes**
talk about it	- it's ok to get help (2)
I can talk about it then do something	- a lot of vets don't like to talk about it (1)
we were good men who did what we were told	Group helps (3)
I no longer have anything to hide	You can make positive changes for yourself (3)
I feel free now	You are not alone (1)
how genuine I am	Anger is a big deal but can better (1)
I mean what I say	Vets need to empathize with other people's trauma, not just our own (1)
awareness of PTSD is not understanding	Comparing traumas is an obstacle to getting better (1)
you can't understand unless you've been there	**PUBLIC (9)**
groups are great	I've been to hell and now I'm back somehow (1)
don't go overe 90 minutes for group	Treat me like a person (1)
not enough vets who are counselors	I don't regret serving, it helped me grow up (1)
you are not alone	We were good men who did our jobs (1)
experiences aren't exactly the same but there is a common thread	I am genuine/mean what I say (2)
just because we don't talk doesn't mean we don't appreciate "Thank you for your service"	Just because we don't talk doesn't mean we don't appreciate "Thank you for your service" (1)
people need to know more about PTSD and do something about it	Freedom isn't free (1)
guys in group get it	Vets are not violent (1)
for vets it is often not a single trauma but a lot of little ones with good in between	**PROFESSION (8)**
combat is a mix of good and bad	Group EBT misses camaraderie and mutual support (1)
VA needs more good counselors	Don't go overe 90 minutes for group (1)
prefer vets, can form a closer connections with another vet	There are not enough vets who are counselors (1)
talking about it gets you through	VA needs more good counselors (1)
it isn't possible for the public to know what soldiers go through	Few civilian clinicians know how to work with vets (1)
combat is impossible to understand unless you experience it	Many vets prefer vets, can form a closer connections with another vet (1)

Q5: What do you wish others would know that would help you feel more connected and supported in living with PTSD?	
Q5 Key Words	**Q5 Themes**
what war is like	Sometimes we don't want to talk about it with other people (1)
freedom isn't free	Combat is a mix of good and bad (1)
I still think a lot about the war and how terrible it was	**PERSONAL (7)**
vets need to empathize with other people's trauma, not just our own	I needed to learn not to worry about what others think (1)
sometimes we don't want to talk about it with other people	It's a process based on what I put into it (1)
there are a lot of ways to be traumatized	I have nothing to hide (1)
comparing traumas is an obstacle to getting better	Sometimes I need space (1)
I worry about being stigmatized	At times I feel like I'm going crazy (1)
at times I feel like I'm going crazy	I still think about the hard times (2)
anger is a big deal but can better	
I still think about the hard times and loss	
civilians know the words but don't really understand	
I've been to hell and now I'm back somehow	
it never goes away	
vets don't talk about it	
it's hard to explain trust issues	
it's frustrating that the public calls so much that is just normal life stress PTSD	
you can't understand if you've never been through it	
vets with PTSD are not their diagnosis	
vets are not violent	
there's a lot of stigma	
few civilian clinicians know how to work with vets	
need more education in PTSD and military culture	
a lot of vets misportray PTSD	
shifting to EBT group treatments has led away from the camaraderie and mutual support of groups	

Q5: What do you wish others would know that would help you feel more connected and supported in living with PTSD?	
Q5 Key Words	**Q5 Themes**
how to recognize symptoms	
sometimes I need space	
awareness is good but unless you have PTSD or are a vet, you can't understand	
it's ok to get help	
although it's dark, tomorrow is a new opportunity to do better	