

How Effective Is Group Cognitive Behavioral Therapy to Treat PTSD?

LT Samuel Harris, NC, USN, RN, PMHNP-BC

A review of studies of the efficacy of group therapy to treat posttraumatic stress disorder suggests it can be an effective treatment for symptom reduction.

Anxiety is a necessary and natural reaction to trauma, but, sometimes, anxiety symptoms become excessive and problematic, as experienced with posttraumatic stress disorder (PTSD). Some patients who struggle with PTSD endure a relentless apprehension so intense that it keeps them from participating in everyday activities, such as attending work and partaking in social activities. Associated anxiety symptoms severely impair everyday function and include increased heart rate, sweating, intrusive images, poor attention, fear, or insomnia. Posttraumatic stress disorder symptoms often lead to occupational dysfunction, relationship difficulty, and numerous other functional impairments.

Approximately 300,000 veterans meet the criteria for PTSD related to ongoing or recent wars.¹ The veteran does not bear the personal and functional burden alone; however, the financial load is felt throughout society. One recent study suggests that for veterans diagnosed with PTSD, the first 2 years after deployment cost society an estimated \$7,000 per individual.² Current research suggests that

this potentially debilitating disorder occurs in about 14% of Operation Iraqi Freedom/Operation Enduring Freedom combat troops, whereas the similar U.S. demographic population experiences PTSD at a rate of about 7%.^{1,3} The ongoing military trauma exposures are compelling the mental health community to establish efficient and effective treatment options.^{4,5}

Several treatment strategies exist to reduce PTSD symptoms, but health care professionals must seek a balance between therapeutic benefit and cost. The treatment of PTSD is diverse and variable; however, in the most recent Clinical Practice Guideline (CPG) for PTSD, the VA and DoD specifically endorse some psychotherapeutic interventions while dissuading the use of others.⁶ Of note, the VA and DoD CPG strongly encourages Stress Inoculation Training (SIT) and similar cognitive therapies aimed at guiding patients through the process of consciously understanding the relationship between thoughts and feelings and then modifying thoughts to appropriately manage stressors.⁶ Meanwhile, group psychotherapy has been determined to be “somewhat helpful.”⁶ Even though cognitive- and group-based therapies have long been established as efficacious for numerous psycho-

logical disorders (depression, obsessive compulsive disorder, eating disorders, etc), neither the American Group Psychotherapy Association nor the VA and DoD CPG directly endorse the use of group cognitive behavioral therapy (GCBT) for the treatment of PTSD.^{6,7} However, both VA and DoD mental health providers commonly practice CBT and various group psychotherapies for the treatment of PTSD.

Despite the widespread use of CBT, there is a gap in the clinical understanding of the evidence supporting GCBT for PTSD. The goal of this synthesis was to understand the efficacy of treating PTSD symptoms with group psychotherapy. To begin this investigation, the following PICO (population, intervention, comparison, outcome) question was asked: In adults diagnosed with PTSD, how effective is group cognitive behavioral therapy in reducing PTSD-related symptoms?

METHODS

Research articles addressing the use of GCBT in PTSD were obtained via database searches that took place during October 2012 (Table). Searched databases included the Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews Randomized Controlled

LT Harris is a member of the Nurse Corps for the U.S. Navy. He is an alumnus of the Uniformed Services University of Health Sciences in Bethesda, Maryland.

Trials, Psychological Information (PsycINFO), and Public Medicine (PubMed).

The PubMed database was searched using the following MeSH (medical subject heading) terms: “psychotherapy, group” and “stress disorders, post-traumatic” and “cognitive therapy.” Limitations were set to include only patients aged ≥ 18 years, results in English, those involving human subjects, and articles published within the past 5 years. A manual search of references was also conducted, and relevant articles were retained.

Articles that addressed primary substance abuse, other DSM Axis I disorders, intimate partner violence, or family issues were excluded from the evidence sample due to concerns of an alternate treatment focus. Articles with a focus on telehealth or alternative medicine were considered confounding to the scope of this review and were also excluded. It was also noted that the term *CBT* is used collectively for an umbrella of treatments; however, treatments that focused on elements other than the components of CBT being delivered in a group were not included. To prevent duplication of the results, research from an inclusive review was not considered individually.

SUMMARY OF EVIDENCE

Six works fulfilled the PICO criteria and were of sufficient quality to be synthesized. Of the 6 articles retained for synthesis, 2 were high-level reviews. Both reviews supported the use of GCBT for PTSD treatment. Barrera and colleagues reported an overall large effect size regardless of the presence of exposure in-group among the 12 treatment conditions and 651 study participants.⁸ These researchers also reported that in-group

exposure did not further traumatize other group members.

Similarly, although a notably older and smaller review, Bisson and Andrew reported a significant standard mean deviation between 4 GCBT treatment and wait list controls. These reviewers did not find a significant difference between trauma- and nontrauma-focused treatment groups. The reviews also noted that individual psychotherapy and/or pharmacotherapy was most often continued throughout the reviewed studies.^{8,9}

The 4 other studies contribute substantively to this synthesis but arguably represent lower evidence quality. A large longitudinal study of 496 Australian veterans reported a large effect size that was sustained 9 months after treatment began.¹⁰ These researchers used an intensive outpatient program that included medication and other treatment modalities as the basis for GCBT delivery. They reported that the majority of the patients revealed improvement in PTSD symptoms.

Another study sampled a similar group of 10 combat veterans but focused particular attention on sleep-related PTSD symptoms of insomnia, nightmares, and sleep quality.¹¹ Although these researchers were unable to report a significant difference in overall PTSD symptoms for the 8 subjects who completed the protocol, they did find a large effect size on insomnia severity and a medium effect size on sleep quality. Regular treatment, including medication, continued throughout this study.

Other researchers reported a medium effect size on PTSD symptoms while using GCBT in a heterogeneous group with various anxiety disorders, including obsessive compulsive disorder, generalized anxiety disorder, social phobia, panic disorder,

and PTSD.¹² Although reporting similar results as all other included studies, this study has some significant limitations, including a 26% dropout rate among the 152 participants. The final study included for synthesis reported a remarkable 67% elimination of the PTSD diagnosis among 6 motor vehicle accident survivors in the small, uncontrolled study.¹³ Concomitant treatments, including medications, were not reported in detail for these 4 studies except as mentioned.

As a whole, the 6 studies revealed some appreciable commonalities. Time since diagnosis did not seem to influence the results. Attrition was consistently found to be similar to other PTSD treatments. The reported session topics were loosely based on common CBT tenets (ie, education, challenging cognitions, and relaxation techniques) and were typically similar among treatment groups, including the use of homework.

DISCUSSION

As the diagnosis of PTSD increases to unfamiliar levels, GCBT has the potential to be helpful to clinicians and patients seeking alternatives to their current treatments.^{1,4,14} The reported results imply that GCBT can be useful in PTSD symptom reduction. This could be particularly useful to VA and military providers or rural providers operating with limited resources.

Treatment protocols are not well established and should be approached with care prior to the establishment of CBT treatment groups for those diagnosed with PTSD. Session overviews and descriptions, such as those mentioned in Thompson and colleagues, could provide a reference point for future use.¹³

Also worth considering, CBT can be an ambiguous term requiring

Table. Article Summary of the Use of GCBT in PTSD Treatment

Article Citation	Primary PTSD Symptom Measurement	Type of Trauma (Participants)	Treatment Session Length/Time	Control Conditions
Reviews				
Barrera, et al ⁸	CAPS PCL	12 treatment conditions (6 veterans, 4 women, 1 MVA, 1 mixed)	30 weeks, Six 2-hour sessions/ week	Multiple All randomized controlled trials reviewed
Bisson and Andrew ⁹	Numerous	Numerous/not reported (veterans, childhood sexual abuse, adult sexual assault)	No recommendation made	3 studies: Wait list 1 study: Trauma-focused GCBT
Individual Studies				
Khoo, et al ¹⁰	PCL	Combat (veterans)	Fifteen 7.5 hours modules over 24 days; three 2-day sessions over 6 weeks; 1-day follow-up at 3 and 9 months	Uncontrolled design
Swanson, et al ¹¹	PSQI	Combat (veterans)	10 sessions 1.5 hours session/week	Uncontrolled design
Erickson, et al ¹²	SCID-IV	Unreported	11 weeks, 2-hour session/week	2-week wait list Stratified by GAF
Thompson, et al ¹³	PDS	RTA/MVA	40 weeks, Twenty 2-hour sessions	Uncontrolled design

CAPS = Clinician Administered PTSD Scale; d = Cohen's effect size; DAR = Dimensions of Anger Reaction; GAF = Global Assessment of Functioning; GCBT = group Problems; IOP = intensive outpatient program; ISI = Insomnia Severity Index; MVA = motor vehicle accident; PCL = PTSD Checklist; PDS = Posttraumatic Diagnostic for DSM-IV; SMD = standard mean difference.

deliberate definition within treatment protocols. As noted in the VA and DoD CPG, exposure- and trauma-focused treatment designs can be efficacious, but these elements do not seem to be required within the GCBT treatment setting.

The current research also sug-

gests GCBT efficacy regardless of the index trauma. This does not suggest that heterogeneous groups were frequently studied nor can conclusions be drawn regarding heterogeneous treatment groups. Elements such as group size and session length are inconsistently reported and require spe-

cific consideration as well. There is a distinct lack of research directly comparing individual CBT with GCBT directly, which prohibits meaningful conclusions regarding PTSD symptom reduction. This research gap may well have influenced the recommendations within the VA and DoD CPG.

Results/Effect Size

Treatment dose did not moderate the effect size of GCBT treatments. Overall pre-post effect size of GCBT treatments for PTSD was large (ES = 1.13 [SE = 0.22, 95% CI: 0.69 to 1.56, $P < .001$]).

GCBT treatments with and without exposure demonstrate comparable effectiveness in treating PTSD symptoms.

GCBT did significantly better than the wait list/usual care group immediately after treatment.
SMD = -.72 (CI: -1.14 to -0.31)

There was no significant difference between the trauma-focused CBT and non-trauma-focused CBT groups.
SMD = .12 (CI: -0.34 to 0.10)

PCL: $d = .7$ (intake to 9-month follow-up)

A total of 60% of patients demonstrated improvement on PTSD symptoms over the course of the program.

PSQI: $d = 0.73$

Average insomnia severity was in the subthreshold range following treatment, but the mean score remained in the clinically significant range. Reductions in PTSD symptoms were not significant. (Only sleep-related symptoms were targeted)

$d = 0.50$

The effect size was substantial but less than that typically obtained with diagnosis-specific CBT protocols.

67% no longer met criteria for PTSD (too small for group analysis)

cognitive behavioral therapy; HADS = Hospital Anxiety and Depression Scale; IIP-32 = Inventory of Interpersonal Scale; PSQI = Pittsburgh Sleep Quality Index; RTA = road traffic accident; SCID-IV = Structural Clinical Interview

Although some higher quality studies exist, many of the published reports on GCBT have noteworthy design flaw, such as inadequate controls and statistical analysis.

LIMITATIONS

There are some limitations to this

literature synthesis. Although the search was limited to the past 5 years, the inclusion of reviews accounts for older evidence. As alluded to earlier, the lack of a standardized GCBT treatment protocol challenges results comparisons as well. The consequent treatment variations make direct in-

terstudy comparison and synthesis difficult. Similarly, outcome measures varied between studies. Also, group psychotherapy is well established and accepted. Therefore, much of the supporting research was accomplished outside the parameters of this literature search. This empirical view of group psychotherapy among mental health providers may also contribute to the lack of available research.

It is also worth noting that studies finding neutral or negative results are often unpublished. This publication bias could account for the lack of available evidence. The research reports do not consistently report therapist qualifications; however, board certificates in group psychotherapy and CBT are undeniably variables available for debate. The inclusion of uncontrolled trials limits these findings as well. Although the above limitations are not exhaustive, they do provide necessary caveats to future generalizations.

FUTURE IMPLICATIONS

Perhaps the most important information to gain from future research is that of treatment outcomes. Studies that include a detailed outcome evaluation could reveal patient satisfaction, efficacy, and financial considerations. In the presence of adequate supportive data, GCBT could contribute outcome data regarding trauma survivor symptom normalization, peer support formation, access to care, treatment efficiency, and health care resources utilization. As noted in Barrera and colleagues, future analysis will require a greater volume of trials with an overall increase in methodological rigor.⁸

Current research has demonstrated a solid base from which to spawn specific treatment protocols. The available research is investigational in terms of treatment proce-

dures. Replication of these studies could dictate treatment protocol and contribute substantively to future VA and DoD CPG updates. Future researchers should consider the use of a standard PTSD symptom assessment tool to make interstudy comparisons more meaningful. The length of treatment and exposure elements should be targeted specifically in future research as these components currently vary the most.

The military represents an obvious avenue for future research due to increased PTSD diagnosis in recent years. Although the etiology of the increase in PTSD is unclear and most likely multifactorial (decreased resilience, increased awareness, increased pursuit of secondary gains, etc), the need for treatment options is apparent.¹ Group cohesion has been shown to be a core component of successful group psychotherapy, so military members who are accustomed to unit cohesion might represent a uniquely suitable population for this modality.¹⁵ Interestingly and for reasons not currently understood, veterans do not see effects of therapy as large as their civilian counterparts.⁸ This underscores the need for further evaluation of military-specific outcomes.

CONCLUSIONS

Although the available evidence is not robust, results do support the careful use of GCBT as an effective treatment for PTSD symptom reduction.⁸ Group psychotherapy has been generally regarded as an efficacious and cost-effective method to achieve similar outcomes to individual therapy. Increasing PTSD prevalence

compels mental health care providers to explore all available treatment options. The potential for GCBT as an option is exciting, especially for mental health providers and those with limited resources. Rising health care standards and the current national fiscal situation is dictating a reevaluation of treatment options; so perhaps all health care providers will soon consider the use of GCBT.

As with any group assignment, the clinician should carefully consider the individual's suitability and desire for group participation.¹⁶ With GCBT, providers could facilitate the relief of relentless apprehension and functional impairment for several patients simultaneously. Although there are many details left to explore regarding the use of GCBT for PTSD, the therapy's foundation for use as a PTSD treatment is apparent. ●

Author disclosures

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