

Elizabeth Abou, BA and Gali Goldwaser, PhD Naval Center for Combat & Operational Stress Control

What is PTSD and how common is it?

Posttraumatic stress disorder (PTSD) is characterized by persistent symptoms of re-experiencing, avoidance and arousal related to a traumatic event in which an individual experienced intense fear, helplessness and/or horror. Prevalence rates for PTSD in a large, nationally representative sample reported an overall lifetime PTSD rate of 7.8%. PTSD is often more common in trauma-specific populations, such as those who experienced sexual assault, natural disaster or military combat. Active-duty service members deployed in support of Operation Enduring Freedom and Operation Iraqi Freedom are at high risk for exposure to traumatic events, with an estimated 12%-14% having PTSD. PTS

Which psychological treatments are most effective?

Cognitive behavioral therapies (CBT), such as stress inoculation training (SIT), ¹⁰ prolonged exposure (PE)¹¹ and cognitive processing therapy (CPT)¹¹ have shown the most promising results. Exposure therapy, a type of CBT, has the strongest support across a variety of populations. ^{12, 13} The U.S. Institute of Medicine has identified exposure therapy as having convincing evidence to support its use. ¹⁴ CPT is one of two manualized therapies known to adequately treat PTSD; the other is prolonged exposure (PE). ^{15, 16}Manualized therapies follow a predetermined protocol for therapy delivery. Such treatments are subjected to rigorous investigation, including randomized controlled trials (RCTs) and consistently yield strong results. ¹²

The focus of this paper is to familiarize the reader with the core components of CPT, to briefly summarize CPT research completed since its inception in 1992 and to highlight some unique benefits of CPT treatment.

What are the fundamental elements of CPT?

CPT was originally developed to treat rape and crime survivors suffering from PTSD.¹⁷ Its three core components are psychoeducation, exposure and cognitive therapy, and it is designed to challenge maladaptive thoughts and feelings that prevent trauma survivors from coming to terms with their experiences, leading to a decrease in PTSD. There are various forms of CPT; however, the standard treatment consists of 12 60-minute sessions once or twice weekly. CPT also can be effectively administered in group format or modified to meet the needs of the individual. (For more details on CPT implementation, refer to Shipherd, Street, & Resick, 2006.¹⁸) Clinicians interested in learning



CPT may register for a training course and should receive ongoing supervision while they are first learning how to conduct CPT.

What is the evidence for CPT treatment?

A literature review of CPT research is summarized in Table 1. Studies included in the table are those that were published since the inception of CPT, excluding case studies.

Existing studies point to CPT as an effective treatment for PTSD. Some studies also found that patients reported less depression. ^{11, 17, 19} Although the majority of CPT studies included only women survivors of sexual trauma, ^{11, 17, 19-24} two studies looked at combat-related PTSD²⁵ and only one included male participants. ¹⁸ Three studies found that CPT outperformed a waitlist (WL)^{17, 26} or minimal attention (MA)²⁰ control group. A dismantling study¹⁹ comparing CPT to its active ingredients found that CPT, cognitive therapy alone (CPT-C) and written accounts (WA) alone were all effective at reducing PTSD symptoms. However, CPT-C resulted in the fastest improvement, followed by standard CPT and WA. CPT in a combined therapy for both PTSD and panic disorder, known as multiple channel exposure therapy (M-CET), also was found to be effective at decreasing PTSD symptoms. ²¹

The strongest evidence for CPT is a RCT study¹¹ where CPT was compared to PE and a control condition. CPT was found to be as effective as PE, and both treatments were superior to the control condition. Four follow-up studies using the same data from the above study¹¹ found that CPT had an advantage over PE in reducing guilt symptoms not related to depression.²² In addition, CPT unlike PE did not initially exacerbate symptoms of avoidance.²³ PE resulted in an increased dropout rate in women with elevated anger, which was not seen in CPT.²⁴ Younger women treated with CPT had better overall results, whereas PE had better overall outcomes with older women.²⁴ Lastly, both CPT and PE were able to reduce health-related concerns, but CPT showed relatively greater improvements.²⁷

Is CPT a good treatment option?

Yes. Evidence points to CPT's efficacy as a psychological treatment for PTSD and has demonstrated potential to decrease symptoms of depression and guilt. Although more research is needed to determine the effectiveness of CPT with various populations, both the Department of Defense and the Department of Veterans Affairs are recommending CPT as an evidence-based treatment for PTSD. A major benefit of CPT is that gains are noticeable in a very short period of time. The rapid response to treatment is particularly important to military and active-duty populations for whom time in garrison may be limited.



References

- 1. Keane TM, Marshall AD, Taft CT. Posttraumatic stress disorder: etiology, epidemiology, and treatment outcome. Annu Rev Clin Psychol 2006; 2: 161-197.
- 2. Kessler RC, Sonnega A, Bromet E, Hughes M, Nelson CB. Posttraumatic stress disorder in the National Comorbidity Survey. Arch Gen Psychiatry 1995; 52(12): 1048-1060.
- **3.** Kilpatrick DG, Edmunds CN, Seymour AK. *Rape in America: A report to the nation*. Arlington, VA: National Victim Center and Medical University of South Carolina;1992.
- **4.** John PB, Russell S, Russell PS. The prevalence of posttraumatic stress disorder among children and adolescents affected by tsunami disaster in Tamil Nadu. Disaster Manag Response 2007; 5(1): 3-7.
- 5. Gray GC, Kaiser KS, Hawksworth AW, Hall FW, Barrett-Connor E. Increased postwar symptoms and psychological morbidity among U.S. Navy Gulf War veterans. Am J Trop Med Hyg 1999; 60(5): 758-766.
- 6. Hoge CW, Castro CA, Messer SC, McGurk D, Cotting DI, Koffman RL. Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. N Engl J Med 2004; 351(1): 13-22.
- 7. Magruder KM, Frueh BC, Knapp RG, et al. Prevalence of posttraumatic stress disorder in Veterans Affairs primary care clinics. Gen Hosp Psychiatry 2005; 27(3): 169-179.
- **8.** Schell TL, Marshall GN. Survey of individuals previously deployed for OEF/OIF. In: Tanelian T, Jaycox LH, eds. *Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery.* Santa Monica, CA: Rand Corporation; 2008:87-115.
- 9. Schnurr PP, Lunney CA, Bovin MJ, Marx BP. Posttraumatic stress disorder and quality of life: extension of findings to veterans of the wars in Iraq and Afghanistan. Clin Psychol Rev 2009; 29(8): 727-735.
- 10. Foa EB, Dancu CV, Hembree EA, Jaycox LH, Meadows EA, Street GP. A comparison of exposure therapy, stress inoculation training, and their combination for reducing posttraumatic stress disorder in female assault victims. J Consult Clin Psychol 1999; 67(2): 194-200.
- 11. Resick PA, Nishith P, Weaver TL, Astin MC, Feuer CA. A comparison of cognitive-processing therapy with prolonged exposure and a waiting condition for the treatment of chronic posttraumatic stress disorder in female rape victims. J Consult Clin Psychol 2002; 70(4): 867-879.
- **12.** Foa EB. Psychosocial treatment of posttraumatic stress disorder. J Clin Psychiatry 2000; 61 Suppl 5: 43-48; discussion 49-51.
- 13. Foa EB. Psychosocial therapy for posttraumatic stress disorder. J Clin Psychiatry 2006; 67 Suppl 2: 40-45.
- **14.** Institute of Medicine. *Treatment of posttraumatic stress disorder: An assessment of the evidence.* Washington, D.C.: National Academies Press; 2008.
- **15.** Foa EB, Kozak MJ. Emotional processing of fear: exposure to corrective information. Psychol Bull 1986; 99(1): 20-35.



- **16.** Foa EB, Rothbaum BO. Treating the trauma of rape: Cognitive-behavioral therapy for PTSD. New York, NY: Guilford Press; 1998.
- **17.** Resick PA, Schnicke MK. Cognitive processing therapy for sexual assault victims. J Consult Clin Psychol 1992; 60(5): 748-756.
- **18.** Shipherd JC, Street AE, Resick PA. Cognitive therapy for posttraumatic stress disorder. In: Follette VM, Ruzek JI, eds. *Cognitive-behavioral therapies for trauma*. New York, NY: Guilford Press; 2006:96-116.
- 19. Resick PA, Galovski TE, O'Brien Uhlmansiek M, Scher CD, Clum GA, Young-Xu Y. A randomized clinical trial to dismantle components of cognitive processing therapy for posttraumatic stress disorder in female victims of interpersonal violence. J Consult Clin Psychol 2008; 76(2): 243-258.
- **20.** Chard KM. An evaluation of cognitive processing therapy for the treatment of posttraumatic stress disorder related to childhood sexual abuse. J Consult Clin Psychol 2005; 73(5): 965-971.
- **21.** Falsetti SA, Resnick HS, Davis J, Gallagher NG. Treatment of posttraumatic stress disorder with comorbid panic attacks: Combining cognitive processing therapy with panic control treatment techniques. Group Dyn 2001; 5(4): 252-260.
- 22. Nishith P, Nixon RD, Resick PA. Resolution of trauma-related guilt following treatment of PTSD in female rape victims: a result of cognitive processing therapy targeting comorbid depression? J Affect Disord 2005; 86(2-3): 259-265.
- 23. Nishith P, Resick PA, Griffin MG. Pattern of change in prolonged exposure and cognitive-processing therapy for female rape victims with posttraumatic stress disorder. J Consult Clin Psychol 2002; 70(4): 880-886.
- 24. Rizvi SL, Vogt DS, Resick PA. Cognitive and affective predictors of treatment outcome in Cognitive Processing Therapy and Prolonged Exposure for posttraumatic stress disorder. Behav Res Ther 2009; 47(9): 737-743.
- **25.** Zappert LN, Westrup D. Cognitive processing therapy for posttraumatic stress disorder in a residential treatment setting. Psychother Theor Res Pract Train 2008; 45(3): 361-376.
- **26.** Monson CM, Schnurr PP, Resick PA, Friedman MJ, Young-Xu Y, Stevens SP. Cognitive processing therapy for veterans with military-related posttraumatic stress disorder. J Consult Clin Psychol 2006; 74(5): 898-907.
- **27.** Galovski TE, Monson C, Bruce SE, Resick PA. Does cognitive-behavioral therapy for PTSD improve perceived health and sleep impairment? J Trauma Stress 2009; 22(3): 197-204.



Table 1. Cognitive processing therapy (CPT) related literature outcomes in the treatment of PTSD

Author	Design	Participants	Treatment	Assessments	Results	Limitations
Resick & Schnicke, 1992	Quasi-experimental comparing CPT to WL	N=39 females sexual assault survivors (n=19 CPT; n=20 WL)	Recounting of trauma done individually and other treatment in group setting	Pre- and post- treatment, 3- and 6- month	CPT subjects improved significantly from pre- to post-treatment on PTSD and depression; maintained for 6 months; no change in comparison group	Subjects not randomly assigned; no comparison to other treatment
Falsetti et al., 2001	WL design to evaluate M-CET for co-morbid PTSD and panic attacks, including a CPT component	N=22 female (n=12 M-CET; n=15 WL)	Group treatment consisted of twelve, 90-minute weekly sessions reinforced with homework assignments	Pre- and post- treatment	M-CET group had reductions PTSD symptoms and panic symptoms	Small sample size; some participants in both WL and treatment groups; no long-term follow-up
Resick et al., 2002	RCT comparing CPT to PE or MA for PTSD and depression	N= 171 female rape survivors ITT group, N= 121 completed study	Individual CPT and PE twice weekly for total of 13 hours of treatment	Pre- and post- treatment; 3-, and 9-month follow-up	CPT and PE both reduced PTSD and depression symptoms compared to MA; PE and CPT showed similar results; CPT produced better reduction in guilt symptoms	Subjects still meeting criteria for PTSD were offered the opportunity to participate in the alternative therapy causing 9-month follow-up data difficult to interpret
Nishith et al., 2002	Follow up to Resick et al., 2002 evaluating: (1) withinsession patterns of change in PE & CPT and (2) symptom clusters of PTSD for differential improvement	N= 171 female rape survivors ITT group; final sample N=108 (n=54 in both PE & CPT groups)	Individual CPT and PE twice weekly for total of 13 hours	CPT: Pre-treatment and following 2, 4.5, 8, and 11 hours of treatment; PE: Pre-treatment and following 2.5, 5.5, 8.5, and 11.5 hours of treatment	CPT and PE groups had initial increase in re-experiencing symptoms prior to seeing decrease; PE group initially increased in avoidance symptoms, no initial increase in avoidance for CPT group	Assessments for PE and CPT were not given following the same amount of treatment, making results only roughly comparable



Author	Design	Participants	Treatment	Assessments	Results	Limitations
Chard, 2005	RCT comparing CPT to MA	N=87 female childhood sexual abuse survivors in ITT and final sample N=55 (n=28 CPT group; n=27 MA group)	CPT for total of 17 weeks, 60-min individual sessions weeks 1-9 &17, 90-min group session for all other sessions	Pre-, post-treatment, 3-, and 12- month follow-up	CPT more efficacious at treating PTSD compared to MA; benefits still present at a one year follow	Limited generalizability due to small sample size and few minorities
Nishith et al., 2005	Follow up to Resick et al., 2002 evaluating if CPT improvement in guilt over PE's was a function of improvement in a subset of participants with PTSD and depression	N= 171 female rape survivors ITT group; final sample N=98 (n=49 in both PE & CPT groups)	Individual CPT and PE twice weekly for total of 13 hours	Pre- and post- treatment; 3-, and 9- month follow-up	CPT was an effective means of treating aspects of trauma related guilt; reduction in guilt did not appear to be related to depression	Limited generalizablility to males; attrition at follow-up; only one measure of guilt used
Monson et al., 2006	RCT comparing CPT to WL	N=60 veterans (n=56 males; n=6 females)	Individual CPT twice weekly for a total of 12 sessions	Pre-, mid- (3 weeks for WL), and one-month post-treatment (10 weeks for WL)	CPT group had significant reduction in severity of their PTSD compared to WL; significant reductions in re-experiencing, emotional numbing, and anxiety for CPT group	Limited generalizability to all veterans; individual therapists effects not evaluated



Author	Design	Participants	Treatment	Assessments	Results	Limitations
Resick et al., 2008	CPT dismantling study, full protocol compared to cognitive therapy only (CPT-C) and written accounts (WA)	N=150 (n=53 CPT; n=50 WA; n=47 CPT-C)	6 weeks, total of 12 hours of treatment for all groups; CPT and CPT-C consisted of 12 sessions, each 60 min, conducted two times per week; WA had, in the 1st week, two separate 60-min sessions; thereafter, the sessions were 2 hours once a week, for a total of seven sessions	Pre-, 2 weeks post- treatment (or if subject discontinued treatment prior to prescribed sessions, 2 weeks after treatment would have ended), and 6 month follow-up	All groups had a significant decrease in PTSD and depression symptoms; fastest improvement in CPT-C, followed by the CPT, and finally the WA	WA strayed from standard protocol, CPT patients are asked to write about their most traumatic event at home and then bring this to therapy, however in this study the writing was done during the session
Zappert & Westrup, 2008	Pre-post program evaluation	N=18 female veterans in the residential Women's Trauma Recovery Program (WTRP)	CPT administered in a group setting for a total of twelve, 90-min sessions	Pre- and post- treatment	Found that 15 out of 18 female participants showed statistically significant reduction in PTSD symptoms	CPT was only a small portion of an intensive 24-hour curriculum; gains from program cannot be solely attributed to CPT
Galovski et al., 2009	Quasi- experimental follow up to Resick et al., 2002 evaluating change in health related concerns and sleep impairments following PE or CPT treatment	N= 171 female rape survivors ITT group; final sample N=108 (n=54 in both PE & CPT groups)	Individual CPT and PE twice weekly for total of 13 hours	CPT: Pre-treatment and following 2, 4.5, 8, and 11 hours of treatment; PE: Pre-treatment and following 2.5, 5.5, 8.5, and 11.5 hours of treatment	Both CPT and PE groups reported lower health-related concerns over treatment and follow-up; the same was found when measuring sleep quality, however participants in both groups did not reach "normal sleep functioning" (score below clinically significant cutoffs) despite gains	Limited generalizability to males; Interpretation of results limited due to lack of a no- treatment comparison condition



Author	Design	Participants	Treatment	Assessments	Results	Limitations
Rizvi et al., 2009	Exploratory study examined cognitive and affective predictors of treatment dropout and treatment	N=171 female sexual assault survivors in ITT, N=145 completed treatment (n=72 CPT, n=73 PE)	Treatment Treatment totaled 13 hours for both CPT (12 sessions) and PE (9 sessions)	Pre- and post- treatment, 3-, and 9-month follow-up	Women with more anger at pre- treatment were more likely to dropout of PE; Older women in PE and younger women in CPT had the best overall outcomes	Limited generalizability
	efficacy in CPT, PE, or WL based on Resick et al., 2002	and WL group were randomized into either CPT or PE after 6 wks	() sessions)		nad the best overall outcomes	

Acronym Key

(CAPS)=Clinician-Administered PTSD Scale

(CPT)=Cognitive Processing Therapy

(CPT-C)=Cognitive Therapy only

(CT)=Cognitive Therapy

(ITT)= Intent-to-treat

(MA)=Minimal attention

(M-CET)=Multiple Channel Exposure Therapy

(N)=Sample size

(PCL)=Posttraumatic Stress Disorder Checklist

(PE)=Prolonged Exposure

(PTSD)= Posttraumatic Stress Disorder

(RCT)=Randomized controlled trial

(STAI)= State-Trait Anxiety Inventory

(WA)=Written accounts

(WL)= Waitlist

(WTRP)=Women's Trauma Recovery Program

