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Cognitive processing therapy for male veterans with military sexual trauma-related posttraumatic stress disorder

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ABSTRACT

Objective: The current study examined 11 male veterans with military sexual trauma (MST)-related posttraumatic stress disorder (PTSD) who participated in a larger randomized control trial comparing cognitive processing therapy (CPT) to a well-established control treatment (Present Centered Therapy; PCT) among men and women with MST-related PTSD.
Method: All participants ($n = 11$) completed a 12 session protocol of CPT. The Clinician Administered PTSD Scale (CAPS), PTSD Checklist (PCL), and Quick Inventory of Depressive Symptomatology (QIDS) were administered at baseline and post-treatment sessions 2, 4, and 6 months after CPT completion. Additionally, the PCL and QIDS were administered every two sessions during CPT treatment.
Results: Piecewise growth curve analyses revealed that significant change over time in both PTSD and depressive symptoms was associated with the active treatment phase and that participants maintained treatment gains over the 6-month follow-up period.
Conclusions: CPT effectively reduced self-reported symptoms of PTSD as well as depressive symptoms for men with MST-related PTSD. Additionally, participants maintained the gains they made during treatment over a 6-month follow-up period. It is recommended that future studies examine patient characteristics that might impact outcome in order to improve understanding of who benefits the most from treatment.

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Military sexual trauma (MST) within the US Armed Forces has received an increasing amount of attention in the past two decades, with prevalence rates as high as 21.5% of women and 12% of men (Hoyt, Rielage, & Williams, 2011, 2012). Although a higher percentage of female veterans endorse MST, findings from the US Department of Veteran Affairs reflect that the actual number of men ($n = 55{,}491$) that endorse MST is somewhat comparable to the number of women ($n = 72{,}497$; U.S. Department of Veteran Affairs, 2012).

To date, however, the majority of previous research examining MST has emphasized the prevalence and consequences among women while few studies have documented the unique consequences of MST among men. This gap is particularly concerning given preliminary data that men have unique responses to sexual assault and may respond differently to established interventions. For example, when comparing civilian men and women who experience sexual assault in the community, men are more likely to endorse symptoms of psychiatric disorders, experience more psychiatric hospitalizations (Kimerling, Rellini, Kelly, Judson, & Learman, 2002), and report greater levels of distress (Tewksbury, 2007).

More specifically, one study that examined military men who screen positive for MST found that PTSD and depressive disorders were the most common mental health-related conditions (Kimerling et al., 2010). Given the association between MST and PTSD among military men, the need for evidence-based treatment of MST-related PTSD among men is critical. Cognitive processing therapy (CPT) is an empirically supported, manualized cognitive-behavioral therapy developed by Resick and Schnicke (1993) for the treatment of rape-related PTSD. It has been further adapted for the treatment of PTSD in veterans and military personnel (Resick, Monson, & Chard, 2010). CPT has been shown to be effective in reducing PTSD symptoms among female civilians with a history of sexual assault (Resick, Nishith, Weaver, Astin, & Feuer, 2002) and male and female civilians with a history of interpersonal violence (Galovski, Blain, Chappuis, & Fletcher, 2013). Despite this, Galovski et al. also found differences in treatment response

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between genders, with female civilians experiencing more rapid gains from psychotherapy than male civilians. As such, Galovski et al. suggested future research examine the clinical outcomes and trajectory of male survivors of trauma with CPT. However, this area remains unstudied within survivors of MST, with no studies, to date, having specifically examined the effectiveness of CPT in a sample of men with a history of MST.

The purpose of the current study is to present initial findings from an evaluation of CPT in treating PTSD and depressive symptoms in a sample of 11 men with MST who participated in a larger randomized controlled psychotherapy clinical trial (Surís, Link-Malcolm, Chard, Ahn, & North, 2013). In the larger study, CPT and PCT were both administered individually across 12 sessions. We examined if men that completed a 12 session CPT protocol reported (1) a reduction in the severity of PTSD symptoms specifically tied to their experience of MST and depressive symptoms over the course of the treatment phase and (2) maintenance of treatment effects on PTSD symptoms and depressive symptoms over a 6-month follow-up.

1. Method

1.1. Participants

The sample consisted of 11 male veterans that participated in a larger randomized clinical study (Surís et al., 2013) examining CPT for MST-related PTSD at a large Veteran's Affairs Medical Center (VAMC) in the southwest. All study procedures were approved by the Institutional Review Board at the VAMC where the data were collected. For the purpose of our study, MST was defined as instances of rape, rape by more than one perpetrator, and/or forced oral sex. In the original study, only female veterans were initially recruited through letters describing the study; however, during the recruitment period, additional funding became available and the recruitment efforts expanded to include male veterans. Subsequently, a total of 15 male participants were enrolled.

In the larger clinical trial, randomization into either the CPT or Present Centered Therapy (PCT) condition was not stratified by sex since male participants were included late in the recruitment process. This resulted in an uneven distribution of men across treatment conditions ($n = 12$ in CPT; $n = 3$ in PCT); therefore, there was not significant power to conduct analyses of between group differences. Additionally, one participant randomized into the PCT condition dropped out following the baseline assessment and one participant in the CPT condition was excluded due to treatment fidelity issues (Surís et al., 2013). Analyses were conducted using the eleven men randomized into the CPT condition in order to examine overall treatment response over time.

Participants ($n = 11$) were, on average, in their mid-40s, had some college education, were in their early 20s when they experienced a MST, and reported 27 years had passed since the MST. The majority were White (69.2%) with the remaining sample reporting their race/ethnicity as Black, not Hispanic (23.1%) or Black, Hispanic (7.7%).

1.2. Measures

The Clinician Administered PTSD Scale (CAPS; Blake et al., 1995) was administered as a measure of clinician-reported PTSD severity. The CAPS is a 30-item structured interview used to assess the frequency and intensity of PTSD symptoms pertaining to a specific traumatic event (in this case MST). The CAPS has strong inter-rater reliability ($\kappa = .95$–1.00) and strong concurrent validity to other measures of PTSD including the PTSD Checklist (PCL; $r = .93$; Weathers, Litz, Herman, Huska, & Keane, 1993) and Mississippi Scale for Combat-related PTSD ($r = .70$, $r = .81$; Keane, Caddell, & Taylor, 1988; Weathers, Keane, & Davidson, 2001).

The PTSD Checklist (PCL; Weathers et al., 1993) is a 17-item, self-report assessment of PTSD symptoms as they relate to a specific traumatic event (e.g., MST). Participants indicate how much they were bothered by each symptom in the past month on a 5-point Likert scale ranging from 1 = not at all to 5 = extremely. Each item rating is summed to provide a total possible score between 17 and 85. The PCL has been shown to have excellent test–retest reliability and internal consistency (Weathers et al., 1993).

Depressive symptoms were measured using the 16-item Quick Inventory of Depressive Symptomatology (QIDS; Rush et al., 2003). Participants are asked to rate the severity of nine DSM-IV-TR (American Psychological Association, 2000) depressive symptoms over the past week and the ratings are summed to yield a total possible score between 0 and 27. The QIDS has demonstrated good psychometric properties (Rush et al., 2003), including high internal consistency and high correlation with another widely used measure of depression (i.e., Hamilton Rating Scale for Depression; Hamilton, 1960).

1.3. Procedure

Participants completed a total of 17 sessions, including one baseline, 12 treatment sessions, and four post-treatment follow-up sessions. The baseline assessments included the CAPS, PCL, and QIDS. Following the baseline, participants completed 12 individual therapy sessions that occurred either once or twice per week depending on the participant's schedule. Measures of PTSD (PCL) and depression (QIDS) were collected every two weeks during treatment; however, due to the time-intensive nature of the CAPS, it was not administered during treatment sessions. Follow-up sessions occurred within one week post-treatment, as well as at two, four, and six months. PTSD and depressive symptoms were re-assessed at the post-treatment and follow-up appointments with the CAPS, PCL, and QIDS.

1.4. Data analysis

Paired sample t-tests were used to compare pre- and post-treatment effects as well as pre- and 6-month follow-up effects on the PCL and QIDS for the subsample of men who completed CPT for MST-related PTSD. Effect sizes were calculated for statistically significant findings. Additionally, growth curve analyses (GCA; Raudenbush & Bryk, 2001) and the HLM 7 computer program were used to apply a piecewise growth curve model to examine initial level and rates of change in PTSD (as measured by the PCL) and depressive symptoms over the two phases of the study: active treatment and follow-up period. Time was centered at post-treatment in order to examine the intercept at post-treatment as well as the slope during treatment and the slope during the follow-up period. Error terms were random unless otherwise indicated.

2. Results

Over the course of treatment, participants reported a significant decrease in self-reported PTSD symptoms on the PCL and clinician-rated PTSD symptoms on the CAPS ($p < .05$). When comparing self-reported and clinician-rated PTSD symptoms at pre-treatment and 6-month follow-up, the differences remained significant ($p < .05$). Finally, participants also experienced a significant decline in depressive symptoms during the course of treatment, with significant differences between baseline and post-treatment depressive symptoms ($p < .01$). However, this significance did not maintain, with pre-treatment and 6-month