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Integrated Cognitive Behavioral Therapy Versus Cognitive Processing Therapy for Adults With Depression, Substance Use Disorder, and Trauma

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ABSTRACT

The comorbidity of substance use disorder (SUD), depression, and PTSD is common among veterans. Prior research has shown that among veterans with SUD and depression, those with PTSD did not maintain cognitive-behavioral treatment gains as well as those without PTSD. Thus, the current study was designed to evaluate whether adding trauma-focused treatment following an initial group-based integrated cognitive behavioral treatment (ICBT) for SUD and depression improved treatment outcomes. Participants were 123 veterans (89% male) recruited from the VA San Diego Healthcare System. All participants received ICBT in twice weekly, group-delivered sessions for 12 weeks (Phase 1). Participants were then randomized to receive 12 sessions of individual follow-up sessions (Phase 2) utilizing either ICBT or cognitive processing therapy that was modified to integrate SUD treatment (CPT-M). Results indicated that PTSD and depression symptoms slightly improved at the end of Phase 1 group ICBT and further improved through Phase 2 individual treatment (except for participants without PTSD who received CPT-M), with treatment gains maintained one year later. Substance use significantly improved at the end of Phase 1 group ICBT and these improvements were maintained through Phase 2 and the one year follow-up. Participants in the trauma-focused Phase 2 treatment (CPT-M) exhibited similar levels of symptom reduction and maintenance of treatment gains as those in the non-trauma-focused Phase 2 treatment (ICBT). However, there was a slight advantage for Phase 2 CPT-M over Phase 2 ICBT with respect to heavy drinking outcomes for individuals with PTSD. Overall, the combination of group ICBT followed by either CPT-M or ICBT individual therapy appears to be effective for veterans with depression, SUD, and trauma history.

1. Introduction

Substance use disorders (SUDs) and depressive disorders are highly prevalent (Grant et al., 2004) and frequently co-occur (Currie et al., 2005; Kessler et al., 2003). Integrated treatments have been shown to be helpful in reducing symptoms of both disorders (Kay-Lambkin, Baker, Lewin, & Carr, 2009; Lydecker et al., 2010). Studies have also shown high rates of Posttraumatic Stress Disorder (PTSD) in SUD treatment settings (37%: Bonin, Norton, Asmundson, Dicurzio, & Pidlubney, 2000; 63%: Stewart, Conrod, Samoluk, Pihl, & Dongier, 2000), depression treatment settings (13%: Felker, Kirchner, Chan, & Rubenstein, 2007; 36%: Carlier, Voerman, & Gersons, 2000), and in co-occurring SUD and depression clinical samples (38%: Norman, Tate, Wilkins, Cummins, & Brown, 2010). PTSD is associated with worse treatment response and poorer maintenance of treatment gains among substance dependent samples, depression samples, and co-occurring SUD and depression samples (Driessen et al., 2008; Green et al., 2006; Hegel et al., 2005; Holtzheimer, Russo, Zatzick, Bundy, & Roy-Byrne, 2005; Norman et al., 2010; Ouimette, Brown, & Najavits, 1998).

Although PTSD is associated with worse substance use and depression outcomes, clinicians have expressed concern that treating PTSD prior to substance use could lead to unsafe coping (i.e., substance use, suicidality), thereby increasing risk for clinical crises (Brady, Killeen, Brewerton, & Lucerini, 2000; Ford, Russo, & Mallon, 2007; Souza & Spates, 2008; Weis, 2010). A recent meta-analysis of psychological interventions for comorbid PTSD/SUD (Roberts, Roberts, Jones, & Bisson, 2015) contradicts this notion and found better PTSD and follow-up (5 to 7 months) substance use outcomes for exposure-based treatment compared to treatment as usual, but also found high treatment dropout across all studies and somewhat higher dropout for exposure-based interventions. Similarly, a review of PTSD/SUD treatment found the

Abbreviations: SUD, substance use disorder; ICBT, integrated cognitive behavioral therapy; CPT-M, cognitive processing therapy- modified; VASDHS, Veterans Affairs San Diego Healthcare System; HDRS, Hamilton Depression Rating Scale; PCL, PTSD checklist; PDA, percentage of days abstinent; LME, linear mixed effects.

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strongest evidence for addressing PTSD and SUD concurrently rather than in a sequential fashion, and that this approach is also favored by patients (McCauley, Killeen, Gros, Brady, & Back, 2012). Yet, a systematic review of concurrent PTSD/SUD treatments found that concurrent treatments in general do not appear to be advantageous; rather, only those that are specifically trauma-focused show superior PTSD and SUD outcomes (van Dam, Vedel, Ehring, & Emmelkamp, 2012). The authors define trauma-focused approaches as those that focus on the memory and meaning of the traumatic event, whereas non-trauma focused therapies focus on present or past aspects of life other than the trauma. All the aforementioned reviews also make clear a need for future randomized controlled efficacy trials with adequate randomization, variant high-risk populations, long-term follow-ups, and active comparison groups (McCauley et al., 2012; Roberts et al., 2015; van Dam et al., 2012).

Some studies of PTSD/SUD treatments demonstrate that depression symptoms often improve along with PTSD and SUD improvements (see McCauley et al., 2012). Current PTSD treatment guidelines acknowledge that severe depression may limit the effectiveness of PTSD treatment, and that addressing depression first may sometimes be helpful (Foa, Keane, Friedman, & Cohen, 2009). However, a recent study (Hemmy Asamsama, Dickstein, & Chard, 2015) found PTSD treatment (i.e., Cognitive Processing Therapy) to be effective for PTSD even in cases of severe depression (changes in depressive symptoms were not reported). Little research has specifically examined how to best treat individuals who have co-occurring PTSD, SUD, and depression, and whether it may be helpful to address depression first.

In our previous research, we developed Integrated Cognitive Behavioral Therapy (ICBT) for treating veterans with both SUD and depression (Lydecker et al., 2010). ICBT aims to help individuals develop cognitive-behavioral skills that are useful for managing both SUD and depression (e.g., challenging maladaptive cognitions, increasing pleasant activities, building healthier social networks). This treatment was found to be efficacious, with greater attendance associated with more improvement in depression and substance use (Lydecker et al., 2010). Although ICBT successfully reduced substance use and depression symptoms, veterans with a comorbid PTSD diagnosis had worse substance use at the one year follow-up compared to individuals without co-occurring PTSD, despite similar improvements during and immediately following treatment (Norman et al., 2010). Thus, treatment gains were compromised over time when PTSD remained untreated. This research finding was the impetus for the current study.

Specifically, we were interested in testing a two-phased treatment approach in which veterans with SUD, depression, and trauma (most of whom met full PTSD criteria) were first provided with group ICBT during Phase 1 in order to address substance use and depression, and were then randomized in Phase 2 to receive individual therapy for PTSD or individual ICBT (reviewing the skills learned in Phase 1). We opted to include trauma-exposed individuals both with and without current PTSD, given that little is known about symptom trajectories for individuals with subthreshold PTSD, despite research indicating that individuals with subthreshold PTSD experience comparable functional impairments to those with PTSD (Norman, Stein, & Davidson, 2007). Our two-phased research design allowed us to test whether specifically addressing PTSD in Phase 2 improves outcomes for individuals with PTSD. Providing the interventions in this sequence capitalizes on the benefits of developing skills for reducing substance use and affective distress using a cost-effective group format prior to initiating a trauma-focused intervention delivered individually. Providing the Phase 2 intervention individually allowed for greater flexibility in scheduling in order to improve attendance as many veterans were expected to return to work or other responsibilities, and also allowed for discussion of variable trauma types and sensitive trauma issues in a private setting (we expected this to be important given the diversity of trauma types reported in veteran samples).

All participants received ICBT in twice weekly, group-delivered sessions for 12 weeks (Phase 1). We then randomized participants to receive follow-up ICBT or Cognitive Processing Therapy (CPT; Resick, Monson, & Chard, 2008) for 12 sessions (Phase 2). CPT was modified for this study (CPT-M) to also address cognitions relevant to SUD relapse prevention within the CPT framework. Treatment during Phase 2 (both ICBT and CPT-M) was delivered individually in once per week, one-hour sessions. We hypothesized that receiving CPT-M following Phase 1 ICBT treatment would result in greater reductions in substance use, depression symptoms, and PTSD symptoms, and better maintenance of treatment gains during the follow-up time period compared to receiving only ICBT treatment. We also hypothesized that greater attendance during Phase 2 would be associated with better outcomes and maintenance of treatment gains over time, and thus tested attendance as a moderator. This is consistent with our findings from our prior study providing ICBT and the documented association between treatment dose and outcomes (Lydecker et al., 2010). Finally, we also examined PTSD diagnosis as a moderator in order to examine whether treatment effects and symptom trajectories differed between those with current PTSD and those exposed to trauma without current PTSD.

2. Method

2.1. Participants

Participants were 123 outpatient veterans from the Veterans Administration San Diego Healthcare System (VASDHS). The study was approved by the University of California, San Diego and VASDHS Institutional Review Boards. This clinical trial is registered at www.ClinicalTrials.gov as NCT00958217. Participants were recruited from referrals to the outpatient dual diagnosis treatment program from October 2009 to October 2012. Inclusion criteria were: (1) presence of a current DSM-IV diagnosis of alcohol, cannabinol, or stimulant dependence with use in the past 90 days; (2) DSM-IV diagnosis of current major depressive disorder or dysthymia (with at least one lifetime episode occurring independent of alcohol or drug use); and (3) trauma exposure (with or without DSM-IV diagnosis of PTSD). Participants who had an abuse/dependence diagnosis from another drug category were included in the study as long as they also met criteria for an alcohol, cannabinoid, or stimulant disorder diagnosis. Exclusion criteria were the presence of a bipolar or psychotic disorder, living more than 50 miles away, memory deficits sufficient to impair accurate recall for assessments, life threatening or unstable medical illnesses, and participating in CPT within the past year.

Eligible participants were told about the study and provided informed consent to participate in 12 weeks of group ICBT treatment, as well as subsequent randomization to 12 sessions of either individual ICBT or individual CPT-M treatment. Participants were allowed up to 16 weeks to complete 12 sessions of Phase 2 ICBT or CPT-M. Randomization was stratified by gender and current PTSD diagnosis. Participants also consented to assessment interviews (at baseline [we use the term baseline to refer to the intake assessment prior to Phase 1], end of Phase 1, end of Phase 2, and quarterly during one year of follow-up), random toxicology screens, and to not participate in any other formal treatment for PTSD, depression, or substance dependence other than community mutual-help groups and pharmacotherapy. Participants were asked not to participate in other formal treatment only during the active treatment phases, and this was monitored during this timeframe. We did not have any participants who opted to drop out of the study in order to engage in other formal treatment.

A total of 154 veterans met initial screening criteria and completed informed consent. Of these, 123 (79.9%) were included in the present study. Participants were excluded from the present study ($n = 31$) if they were unable to be randomized into Phase 2 treatment because they died, moved, refused, were not psychiatrically or medically stable, were lost to follow-up before completing the baseline assessment, did not meet study criteria, or if recovery home requirements would not allow participation. Note that we did not have any exclusion criteria