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Effectiveness of Acceptance and Commitment Therapy in treating depression and suicidal ideation in Veterans☆

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ABSTRACT

Objective: This paper examines the effects of Acceptance and Commitment Therapy for depression (ACT-D), and the specific effects of experiential acceptance and mindfulness, in reducing suicidal ideation (SI) and depression among Veterans.
Method: Patients included 981 Veterans, 76% male, mean age 50.5 years. Depression severity and SI were assessed using the BDI-II. Experiential acceptance and mindfulness were measured with the Acceptance and Action Questionnaire-II (AAQ-II) and the Five Facet Mindfulness Questionnaire, respectively.
Results: Of the 981 patients, 647 (66.0%) completed 10 or more sessions or finished early due to symptom relief. For Veterans with SI at baseline, mean BDI-II score decreased from 33.5 to 22.9. For Veterans with no SI at baseline, mean BDI-II score decreased from 26.3 to 15.9. Mixed models with repeated measurement indicated a significant reduction in depression severity from baseline to final assessment ($b = -10.52$, $p < .001$). After adjusting for experiential acceptance and mindfulness, patients with SI at baseline demonstrated significantly greater improvement in depression severity during ACT-D treatment, relative to patients with no SI at baseline ($b = -2.81$, $p = .001$). Furthermore, increases in experiential acceptance and mindfulness scores across time were associated with a reduction in depression severity across time ($b = -0.44$, $p < .001$ and $b = -0.09$, $p < .001$, respectfully), and the attenuating effect of mindfulness on depression severity increased across time ($b = -0.05$, $p = .042$). Increases in experiential acceptance scores across time were associated with lower odds of SI across time (odds ratio = 0.97, 95% CI [0.95, 0.99], $p = .016$) and the attenuating effect of experiential acceptance on SI increased across time (odds ratio = 0.96, 95% CI [0.92, 0.99], $p = .023$). Overall the number of patients with no SI increased from 44.5% at baseline to 65% at follow-up.
Conclusions: Veterans receiving ACT-D demonstrated decreased depression severity and decreased odds of SI during treatment. Increases in experiential acceptance and mindfulness scores were associated with reduction in depression severity across time and increases in experiential acceptance scores were associated with reductions in SI across time.

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Suicide is a complex behavior with far-reaching impact. Providing support and treatment to those suffering from suicidal ideation and behavior is a key mental health care priority. Veterans account for an estimated 20% of suicide deaths in the United States (Chakravorty et al., 2013), and the suicide rate among younger Veterans is rising (Institute of Medicine, 2010; Kuehn, 2009). As part of its important focus on suicide prevention, the Veterans Health Administration (VHA), the health care component of the U.S. Department of Veterans Affairs (VA), has been working to ensure veteran access to high quality mental health services and has

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implemented a number of specific suicide prevention strategies (Katz, 2012).

Although a number of factors influence suicide ideation and attempts, depression is one of the greatest risk factors (Brown, Beck, Steer, & Grisham, 2000; Gotlib & Hammen, 2002). Reductions in depression have been associated with reductions in suicide ideation (Bruce et al., 2004; Mann et al., 2005). To improve the treatment of depression and other mental and behavioral health conditions, VHA has implemented a number of national evidence-based psychotherapy dissemination initiatives, which include competency-based training programs for each of these therapies (Karlin & Cross, 2014). One of these initiatives focuses on Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 2012) for depression (ACT-D; Walser, Sears, Chartier, & Karlin, in press; Zettle, 2007). Initial program evaluation data have shown that ACT-D resulted in significant overall reductions in depression ($d = 1.04$) and improvements in quality of life among veterans treated by VA mental health providers being trained in ACT-D (Walser, Karlin, Trockel, Mazina, & Taylor, 2013).

ACT utilizes a number of process interventions that may reduce suicidal ideation, as well as depression. One psychological process suggested as a pathway to suicidal ideation and suicide attempts is experiential avoidance (Chiles & Strosahl, 2005; Luoma & Villatte, 2012; Zettle, 2007) – the desire and actions taken to eliminate painful or unwanted thoughts and emotions. From this perspective, thinking about, planning or attempting suicide can be viewed as a way to solve the problem of intractable difficult emotional experience for the suicidal individual, and may be a strategy that is more likely to be used by those who have low tolerance for distress or ability to cope (Chiles & Strosahl, 2005). In a meta-analytic review (Hayes, Luoma, Bond, Masuda, & Lillis, 2006), experiential avoidance was purported to account for 16–25% of the variance in behavioral health problems including suicidal behavior. Additionally, in a recent evaluation, veterans demonstrated significant improvement in experiential acceptance (i.e., decrease in experiential avoidance) and mindfulness (see Walser et al., 2013).

ACT expressly targets experiential avoidance using several core processes designed to decrease ineffective and problematic escape from emotional pain (e.g., suicide ideation and suicide attempts) by increasing experiential acceptance and mindful awareness. Four of the core processes used in ACT (i.e., present moment awareness, defusion, willingness and self-as-context; see Hayes et al., 2012) foster these outcomes. A number of studies have shown that promoting mindful awareness of psychological events decreases experiential avoidance (see Hayes et al., 2006 for a review) and increases psychological flexibility, a strong correlate of mental health (Kashdan & Rottenberg, 2010).

Although data from clinical research studies, summarized in Hayes et al. (2006), Powers, Zum Vörde Sive Vörding, and Emmelkamp (2009), and Ruiz (2010), and real-world effectiveness evaluations have demonstrated the efficacy and effectiveness of ACT, there has been limited research on the effect of ACT on suicidal ideation and suicidal behavior (Luoma & Villatte, 2012). Moreover, the relationship between increases in experiential acceptance and mindful awareness, two key goals of ACT-D, and depression and suicidal ideation has not been examined in a veteran population.

The purpose of this evaluation is to examine the effectiveness of ACT-D in reducing depression severity and suicidal ideation among veterans treated in routine clinical settings and to compare change in depression severity achieved by veterans with suicidal ideation at baseline with change in depression severity achieved by those without suicidal ideation at baseline, based on program evaluation data now available through the VA ACT-D Training Program. This evaluation also examines the association between depression severity and suicide ideation during ACT-D treatment. In addition, the association between key ACT-D intervention process targets (experiential acceptance and mindfulness) and outcome variables (depression and suicidal ideation) are examined.

1. Methods

1.1. Program description

The ACT for Depression treatment protocol (Walser et al., in press) was developed specifically for veterans and is intended to be administered in approximately 12–16 individual psychotherapy sessions. The protocol provides ACT-D specific information including (1) behavioral theory and background (e.g., the role of language in human suffering), (2) implementation of the six core processes (e.g., defusion, acceptance, present moment, self-as-context, committed action and values; includes metaphors, exercises, example patient/therapist dialog), (3) specific patient skills (e.g., mindfulness, goals versus values distinction), (4) therapeutic alliance building (e.g., mindfulness rationale, use of compassion), (5) patient homework assignments and (6) useful appendices (e.g., safety planning worksheets, internet and hotline information). The protocol and training methods have been described in detail elsewhere (Walser et al., 2013).

In brief, the VA ACT-D Training Program incorporates a competency-based training model that includes participation in an experientially-oriented training workshop, followed by weekly, 90-minute telephone-based consultation sessions for 6 consecutive months. These sessions are led by an expert ACT-D training consultant who provides feedback on the implementation of the protocol and core processes as well as feedback on and rating of audio-taped therapy sessions. Each clinician trainee needed to complete at least 10 sessions of the ACT-D protocol to meet one of a number of minimum criteria to achieve competency.

The ACT-D therapy protocol and training also address assessment and treatment of suicide ideation and risk. Specifically, therapists were instructed to administer the BDI-II prior to each ACT-D session. In addition to examining the BDI-II total score as a possible indicator of suicide risk, therapists also review the BDI-II suicide ideation item (see Beck, Steer, & Brown, 1996), as well as verbally assess for suicidal thought or intent. Any increased or elevated score or verbal report of suicide ideation would then prompt the therapist to evaluate for suicide risk and take appropriate action as clinically indicated (e.g., assess risk level, implement a Safety Plan, etc.) (Wenzel, Brown, & Karlin, 2011). Safety planning consists of a written, prioritized list of coping strategies and sources of support that veterans can use to alleviate a suicidal crisis (Stanley, Brown, Karlin, Kemp, & VonBergen, 2008) and has been used in the context of short-term, evidence-based psychotherapies that have been found to reduce suicide risk (Brown et al., 2005; Stanley et al., 2009).

There were no limitations on the types of veteran patients who could receive ACT-D from therapists participating in the training program other than patients needed to have a diagnosis of depression and not be in acute crisis or have an impairment that would render them inappropriate for initiation of psychotherapy. Patients were recruited from the clinician trainees' current practice setting. Patients were either new to the therapist and entered the clinic through regular means (as determined by the clinic) or were already patients of the therapists in the program. No patients were excluded for co-morbidities or other life problems. Patients consented to being audio-taped for the purposes of therapist training and program evaluation. At the first session, patients completed a demographic form that included their age, gender, highest level of education, and ethnicity.