

Effectiveness and Mediating Mechanisms of Acceptance and Commitment and Cognitive Behavioral Therapies in the Treatment of Mixed Depression and Anxiety

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Introduction

Effectiveness of ACT. Acceptance and Commitment Therapy (ACT), as one of the newer, third-wave variations of cognitive-behavioral therapy (CBT), is particularly concerned with discouraging experiential avoidance, decreasing attempts to control internal experiences, and moving in the direction of valued goals. To date, only a handful of randomized controlled trials have been conducted evaluating the effectiveness of ACT for the treatment of mood and anxiety disorders, and even fewer directly comparing ACT to CBT. However, findings to date have strongly supported the effectiveness of ACT.

Mechanisms of Action. Surprisingly little is known about the mechanisms by which CBT and ACT exert their positive effects. Of note, the existing research on mechanisms of CBT effect has often failed to find support for the theoretically proposed mediators of this therapy, such as reducing dysfunctional attitudes. Some findings point to increased acceptance of undesirable thoughts and feelings as a specific mechanism of action for ACT. Some aspects of mindfulness (awareness, acceptance, ability to describe experiences), an explicit component of ACT, overlap with the constructs of defusion and meta-cognitive awareness which may mediate the effects of both CBT and ACT.

Current Study. The current study randomly assigns a mixed client population to either ACT or CBT. The aim of the current study is to investigate the effectiveness of ACT in terms of general outcome improvement and the relative effectiveness of ACT versus CBT. Additionally, it seeks to test whether dysfunctional attitudes, experiential avoidance and mindfulness variables mediate outcome differentially for the two treatments.

Method

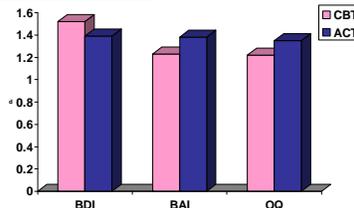
This presentation reports findings from an ongoing randomized clinical trial in which patients with mixed anxiety and depression are assigned to either ACT or CBT. Patients ($n = 46$) are health professional students seeking treatment at a university counseling center who vary by gender (79% female), ethnicity (7% African American, 12% Asian American, 72% White), age ($M = 27.8$, $SD = 7.1$), and primary diagnosis (36% depressive disorder, 41% anxiety disorder, 7% eating disorder).

Outcomes were assessed at baseline, at a 3-month follow-up point, and, for some patients ($n = 15$), 6 months post-termination. Outcome variables were depression (BDI-2), anxiety (BAI) and social/vocational functioning difficulties (OQ-45). Also assessed were potential mediators, i.e. dysfunctional attitudes (ATQ), experiential avoidance (AAQ), and mindfulness (KIMS; subscales: observing, act with awareness, describing, acceptance).

Allegiance. Study therapists are graduate student trainees who have received specialized training and supervision in both ACT and CBT. Allegiance effects were minimized by including investigators with backgrounds in both CBT and ACT, and through attempting to ensure equality of training time and emphasis across the two treatments. **An anonymous measure of therapist allegiance indicated therapists had no clear allegiance to either of the therapies.** If forced to pick an allegiance, approximately half chose each treatment (55% CBT, 45% ACT).

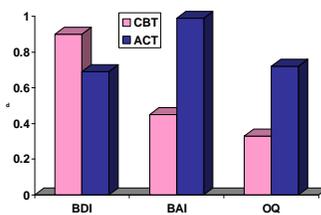
Results

General Effectiveness: pre-post Cohen's d



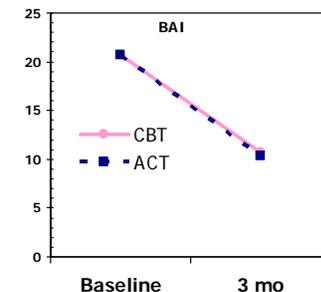
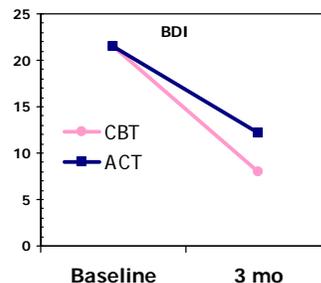
Both treatments showed large decreases in symptoms levels between baseline and the 3 month follow-up. For this analysis, and comparative effectiveness analyses below, only patients with moderate symptoms at baseline were included ($n_s = 38, 20, 33$).

Long-term Effectiveness: pre-6 mo post Cohen's d

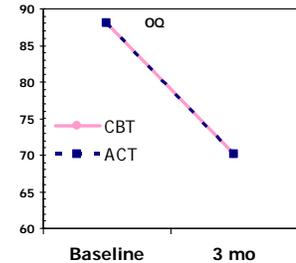


Both treatments showed moderate-large decreases in symptoms levels between baseline and 6-month post-termination follow-up, with indications of long-term advantage of ACT for BAI and OQ ($n = 15$).

Comparative Effectiveness: ANCOVA

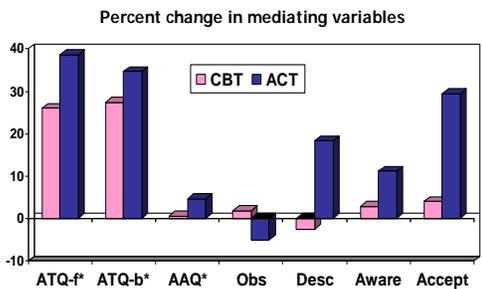


Comparative Effectiveness: ANCOVA (continued)

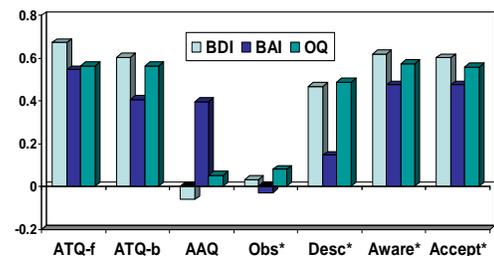


ANCOVA's were utilized to examine the effect of condition on Time 2 symptoms with baseline symptoms as a covariate. In the case of all three outcomes, the effect of treatment condition was not significant (BDI: $F(1, 38) = 1.74, p = .20, \text{partial } \eta^2 = .05$); BAI: $F(1, 26) = 0.00, p = .96, \text{partial } \eta^2 = .00$; OQ: $F(1, 19) = .12, p = .73, \text{partial } \eta^2 = .01$). **Thus, data indicate that CBT and ACT were equally effective.**

(Proxy) Mediation Analyses



Correlations between mediators (residualized) and outcomes (residualized)



Proxy mediational analyses suggest that (frequency of and belief in) dysfunctional thoughts may mediate outcome for both ACT and CBT, while certain dimensions of mindfulness (describing, acting with awareness and acceptance) mediate outcome only for ACT.

*Valence reversed in figures above where marked by asterisk.