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Dialectical behavior therapy skills for transdiagnostic emotion dysregulation: A pilot randomized controlled trial

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ABSTRACT

Difficulties with emotions are common across mood and anxiety disorders. Dialectical behavior therapy skills training (DBT-ST) reduces emotion dysregulation in borderline personality disorder (BPD). Preliminary evidence suggests that use of DBT skills mediates changes seen in BPD treatments. Therefore, we assessed DBT-ST as a stand-alone, transdiagnostic treatment for emotion dysregulation and DBT skills use as a mediator of outcome. Forty-four anxious and/or depressed, non-BPD adults with high emotion dysregulation were randomized to 16 weeks of either DBT-ST or an activities-based support group (ASG). Participants completed measures of emotion dysregulation, DBT skills use, and psychopathology every 2 months through 2 months posttreatment. Longitudinal analyses indicated that DBT-ST was superior to ASG in decreasing emotion dysregulation ($d = 1.86$), increasing skills use ($d = 1.02$), and decreasing anxiety ($d = 1.37$) but not depression ($d = 0.73$). Skills use mediated these differential changes. Participants found DBT-ST acceptable. Thirty-two percent of DBT-ST and 59% of ASG participants dropped treatment. Fifty-nine percent of DBT-ST and 50% of ASG participants complied with the research protocol of avoiding ancillary psychotherapy and/or medication changes. In summary, DBT-ST is a promising treatment for emotion dysregulation for depressed and anxious transdiagnostic adults, although more assessment of feasibility is needed.

Successful psychosocial treatments exist for a large range of mental disorders; nevertheless, it is becoming increasingly difficult to offer clients the most effective treatment in the shortest amount of time (Barlow, Allen, & Choate, 2004; Fava, Evins, Dorer, & Schoenfeld, 2003). One potential solution to this problem is to identify transdiagnostic mental health problems and interventions that successfully reduce them.

One transdiagnostic problem in need of treatment is *emotion dysregulation*, defined as lacking the skills needed or using maladaptive strategies to regulate emotional responses (Kring & Sloan, 2010; Neacsiu, Bohus, & Linehan, 2013). Difficulties with emotion regulation impede treatment (e.g., Ciarrochi & Deane, 2001; Vogel, Wade, & Hackler, 2008) and are relevant to the majority of psychological disorders. Over 85% of diagnoses in the *Diagnostic and Statistical Manual of Mental Disorders* involve excesses or deficits of emotions or a lack of coherence among emotional components (Kring & Sloan, 2010). When assessed for difficulties with emotion regulation, adults with binge-eating disorder (Whiteside et al., 2007), generalized anxiety disorder (GAD; Salters-Pedneault, Roemer, Tull, Rucker, & Mennin, 2006), substance use disorder (Fox, Axelrod, Paliwal, Sleeper, & Sinha, 2007), or anorexia nervosa (Harrison, Sullivan, Tchanturia, & Treasure, 2009) report more difficulty regulating emotions than healthy controls.

Affective disorders in particular have been strongly connected to maladaptive emotional responses (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Taylor & Liberzon, 2007), and their development and maintenance have been theoretically and empirically linked to chronic emotion dysregulation (e.g., Cisler, Olatunji, Feldner, & Forsyth, 2010; Kring & Bachorowski, 1999). Individuals who meet criteria for anxiety or depression report and demonstrate frequent

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use of maladaptive emotion regulation strategies, such as experiential avoidance, suppression, rumination, and problematic goal setting (Aldao et al., 2010; Campbell-Sills, Barlow, Brown, & Hofmann, 2006; Kring & Sloan, 2010). Furthermore, participants with either a mood or an anxiety disorder report limited emotional clarity, fear of experiencing emotions (Campbell-Sills et al., 2006; Mennin, Heimberg, Turk, & Fresco, 2005), inappropriate emotional intensity (Etkin & Wager, 2007), inability to modulate emotions based on contextual demands (Koole, 2009; Rottenberg, Kasch, Gross, & Gotlib, 2002), and intense reactions to nonthreatening cues (Kross, Davidson, Weber, & Ochsner, 2009; Schmidt & Keough, 2010). Researchers have also argued that underlying problems with affect are common in depression and anxiety (Barlow et al., 2004).

Transdiagnostic treatments for problems with emotions are emerging (Ellard, Fairholme, Boisseau, Farchione, & Barlow, 2010). Nevertheless, more research is needed to characterize how behavioral treatments change emotion dysregulation across disorders. Our aim was therefore to test an intervention designed to reduce transdiagnostic emotion dysregulation. Neacsiu et al. (2013) presented a transdiagnostic treatment model for emotion dysregulation. The model includes teaching skills that help the individual reduce vulnerability to emotions; manage situations that cue emotions; control attention toward or away from emotional stimuli; interpret emotional cues; manage biological, experiential, and action changes; and process emotions.

This treatment model was derived from dialectical behavior therapy (DBT; Linehan, 1993a), an empirically supported treatment for suicide and for borderline personality disorder (BPD; for a review see Neacsiu & Linehan, 2014). DBT is based on a skills deficit model that views dysfunctional behavior as either a consequence of dysregulated emotions or a maladaptive approach to emotion regulation (Linehan, 1993a, 1993b). Consequently, DBT includes more than 60 concrete skills (translated from behavioral research and other evidence-based treatments) that are grouped into four modules: (a) mindfulness skills, which emphasize observing, describing, and participating in the present moment effectively and without judgment; (b) emotion regulation skills, including strategies for changing emotions and the tendency to respond emotionally; (c) interpersonal effectiveness skills, ranging from acting assertively to maintaining self-respect; and (d) distress tolerance skills, including strategies to control impulsive actions and to radically accept difficult life events (Linehan, 1993b). These skills map onto the treatment model for emotion dysregulation (Table 1), offering a comprehensive intervention for the lack of adaptive skills and use of maladaptive strategies that define emotion dysregulation (Neacsiu et al., 2013).

Emerging evidence suggests that DBT skills training (DBT-ST) reduces problems with emotions and is feasible to implement with a variety of mental disorders. DBT-ST outperformed treatment as usual in decreasing depression in treatment-resistant individuals (Harley, Sprich, Safren, Jacobo, & Fava, 2008) and in decreasing depression, anxiety, and anger in a BPD sample (Soler et al., 2009). When compared to an active control condition, DBT-ST equally reduced emotion dysregulation and problems with anger, anxiety, and depression for participants diagnosed with eating disorders (Safer, Robinson, & Jo, 2010). Evidence also suggests that increased use of DBT skills mediates the relationship between time in treatment and changes in depression, anger control, and suicidal behavior across multiple treatments in BPD samples (Neacsiu, Rizvi, & Linehan, 2010). Thus, DBT skills use may be a mechanism of change for emotion dysregulation.

In the current outcome study, we pilot tested DBT-ST as a transdiagnostic intervention for emotion dysregulation using a randomized controlled trial (RCT) designed to control for common therapy factors. We targeted non-BPD adults with high emotion dysregulation who met criteria for at least one anxiety or depressive disorder. We chose to target adults with clinical anxiety or depression because emotion dysregulation had been most strongly connected with depression and anxiety (see Aldao et al., 2010; Cisler et al., 2010; Kring & Bachorowski, 1999) and because we wanted to ensure the sample had significant clinical distress.

We had two primary aims. First, we assessed the unique effects of DBT-ST on emotion dysregulation. We hypothesized that (a) DBT-ST would reduce emotion dysregulation significantly more than an activities-based support group (ASG) and (b) DBT skills use would mediate the differential changes between conditions. Second, we explored (a) the unique effects of DBT-ST on depression and anxiety severity, (b) whether DBT skills use mediated differential changes, and (c) whether confounding effects explained any significant findings. As a supplementary aim, we also examined the feasibility of DBT-ST for a transdiagnostic sample based on (a) retention rates, (b) treatment credibility and satisfaction, and (c) compliance with the ancillary treatment protocol.

Table 1
Dialectical behavior therapy skills training curriculum and targeted components of emotion dysregulation.[a]

Week	Module[b]	Selected skills	Target problems with[a]
1	Mindfulness	Wise Mind, Observe	
2		Describe, Participate, Nonjudgmental, One Mindful, Effective	All components
3	Emotion Regulation	Understand, Identify & Label Emotions	Processing emotions
4		Check the Facts	Cognitive Change
5		Opposite Action	Managing emotional expressions/actions
6		Problem Solving	Managing situations that cue emotions
7		Accumulate Positives, Build Mastery	Managing vulnerability to emotions
8		Cope Ahead, PLEASE	
9	Mindfulness	Mindfulness review	All components
10	Distress Tolerance	TIP Body Chemistry, Managing Extreme Emotions	Managing biological/experiential changes
11		Distract, Self-Soothe, Improve Moment	Controlling attention
12		Radical Acceptance, Turning the Mind	Cognitive Change
13		Willingness, Half-Smile, Mindfulness of Thoughts	Managing biological/experiential changes, cognitive change
14	Interpersonal Effectiveness	DEAR MAN GIVE FAST	Managing situations that cue emotions
15		Interpersonal Validation	Cognitive change
16		Behavioral principles in relationships	Managing situations that cue emotions

Note. Weeks in which participants could join the group are in boldface.
[a] See Neacsiu, Bohus, and Linehan (2013) for a full description of the treatment model of emotion dysregulation.
[b] DBT skills training module in the original skills manual (Linehan, 1993b).

Method

Participants and design

Intent-to-treat (ITT) participants were 44 men and women from a metropolitan area in the Northwestern United States. Participants were included if they were older than 18 years of age, scored high in emotion dysregulation (above 96 on the Difficulties in Emotion Regulation Scale; DERS; Gratz & Roemer, 2004), and met criteria for at least one current depressive or anxiety disorder on the